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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Thomas L. Judge, Governor

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ANNUAL REVIEW FOR THE YEAR 1978

Relating to

OIL AND GAS

Volume 22

BOARD OF OIL AND GAS CONSERVATION

R. A. CAMPBELL, Chairman
1222 North 27th Street
Billings, Montana 59101

C. J. IVERSON, Vice-Chairman
P.O. Box 830
Shelby, Montana 59474

MILTON G. ANDERSON
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1978
SUMMARY OF YEAR ACTIVITIES

Oil Produced		30,467,337 Bbls.
Oil Imported (Refined)		
Canadian	- 21,368,884	
North Dakota	- 69,286	38,951,506 Bbls.
Wyoming	- 17,513,336	
Oil Exported (Transporters)		21,383,104 Bbls.
Gas Withdrawals		
Natural	- 44,615,198	47,139,895 Mcf.
Associated	- 2,524,697	

Averages (365 days)

Oil Produced	83,472 Bbls.
Oil Imported	106,716 Bbls.
Oil Exported	58,584 Bbls.
Natural Gas	129,150 Mcf.

Board of Oil and Gas Conservation of the State of Montana

Thomas L. Judge, Governor

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2535 ST. JOHN'S AVENUE
BILLINGS, MONTANA 59102

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2535 ST. JOHN'S AVENUE
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Technical Office and
Southern District Field Office. 2535 St. John's Ave., Billings, Montana 59102
Northern District Field Office..... 218 Main Street, Shelby, Montana 59474

Annual Review for the Year 1978
Volume 22

ACTIVITY REVIEW — MONTANA 1978

The number of wells drilled for oil or gas in Montana during 1978 totalled 793, an increase of 115 wells over 1977, with 215 exploratory wells resulting in 11 oil and 11 gas new field discoveries. There were also 4 oil and 3 gas new pay zone wells and 10 oil and 1 gas field extension wells completed. Development drilling during the year proved very successful. A total of 123 oil and 223 gas wells were completed as producers out of the 578 development wells drilled.

The noticeable increase of geological and geophysical exploration now being followed by an acceleration of drilling is expected to continue, and the outlook for future oil and gas development in Montana is very good. Aggressive exploration and leasing along the Overthrust Belt area of Western Montana is expanding and indications are that several wells will be drilled in 1979 along this sparsely tested major structural trend.

There was a high success rate of active wildcat and development well drilling in the Williston Basin portion of Eastern Montana during 1978 including ten of the eleven oil well discoveries. The number of producing wells in this area has noticeably increased from 737 in 1977 to 863 in 1978.

Overall oil production for 1978 was 30.5 million barrels; down 2.2 million barrels from the 32.7 million barrels produced in 1977. Although there was some production decline in fields located in Northern, South Central and Central Montana, the major production decline took place in the secondary recovery projects at Bell Creek Field in the Powder River Basin where oil production dropped from 9.1 million barrels in 1977 to 7.3 million in 1978. A tertiary recovery pilot program is in progress at Bell Creek and the effectiveness of this process has not yet been fully evaluated.

The production of oil however, has been steadily increasing in the Williston Basin of Eastern Montana since 1975 and the 1978 production of 15.1 million barrels exceeded the 1977 production by slightly more than 600,000 barrels.

Total gas production for 1978 was 47.1 billion cubic feet. This includes some 2.5 billion cubic feet of associated gas and is only slightly below the 47.2 billion cubic feet of total gas withdrawn in 1977. However, natural gas withdrawals for 1978, excluding associated gas, was approximately one billion cubic feet greater than the 1977 output of 43.6 billion cubic feet.

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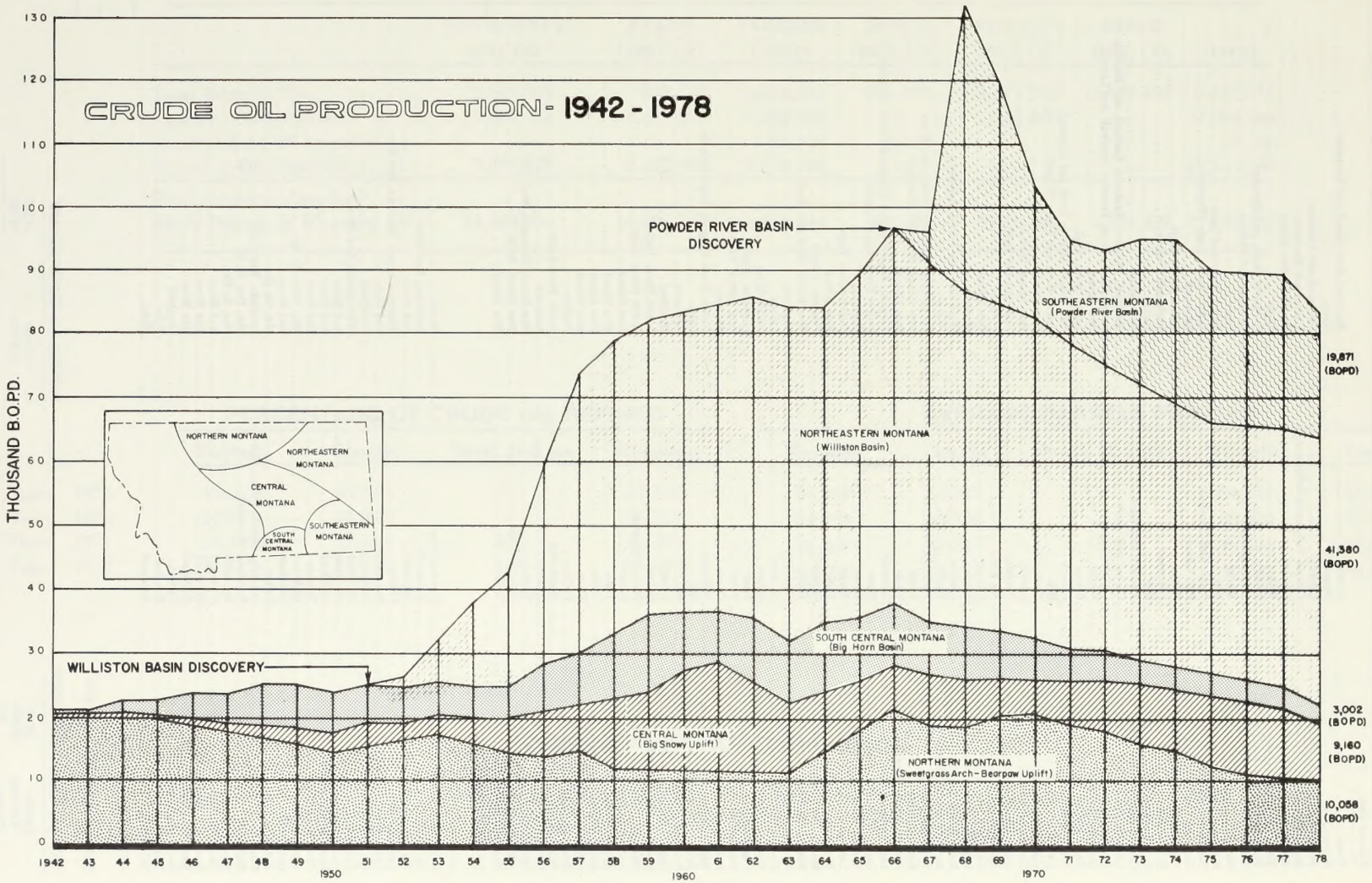
FIVE YEAR SUMMARY

	1974	1975	1976	1977	1978
Production, Northern Montana — Bbls.	5,464,319	4,551,324	4,200,539	4,060,957	3,671,322
South Central — Bbls.	1,432,528	1,318,779	1,246,005	1,210,064	1,095,737
Central — Bbls.	3,334,759	3,954,024	4,063,897	3,677,361	3,343,556
Williston Basin — Bbls.	14,939,292	14,312,685	14,496,380	14,621,635	15,103,853
Powder River Basin — Bbls.	9,383,064	8,706,862	8,807,439	9,110,037	7,252,869
TOTAL	34,553,962	32,843,674	32,814,260	32,680,054	30,467,337
No. of Producing Wells, Northern Montana	1,802	2,067	1,978	1,999	2,052
South Central	86	100	97	109	115
Central	267	303	316	343	347
Williston Basin	712	734	737	789	863
Powder River Basin	233	231	181	178	169
TOTAL	3,100	3,435	3,309	3,417	3,546
Average Daily Production/Well — BOPD,					
Northern Montana	8.3	6.0	5.8	5.6	4.9
South Central	45.6	36.1	35.1	30.4	26.1
Central	34.2	35.8	35.2	29.4	26.4
Williston Basin	57.4	53.4	53.8	50.8	48.9
Powder River Basin	100.3	103.2	133.3	140.2	117.6
STATE AVG.	30.5	26.2	27.1	26.2	23.5
Development Wells Drilled, Oil Wells	58	105	106	98	123
Gas Wells	179	261	264	220	223
Dry Holes	212	222	169	188	232
TOTAL	449	588	539	506	578
Exploratory Wells Drilled, Oil Wells	7	6	17	24	21
Gas Wells	21	15	8	19	15
Dry Holes	265	236	223	129	179
TOTAL	293	257	248	172	215
TOTAL WELLS DRILLED	742	845	787	678	793
TOTAL FOOTAGE DRILLED	2,173,519	2,467,838	2,826,301	2,482,379	2,968,842
AVERAGE DEPTH OF ALL WELLS	2,929	2,921	3,591	3,661	3,744

SUMMARY OF DRILLING BY COUNTIES — 1978
STATE OF MONTANA

County	Wildcats			Development			Total Wells	Footage Drilled	Average Depth
	Dry	Oil	Gas	Dry	Oil	Gas			
Beaverhead	3						3	22,596	7,532
Big Horn	3			3	3		9	33,814	3,757
Blaine	16			53		42	111	194,027	1,748
Carbon	4	1		5	2	4	16	86,677	5,417
Carter	2			1			3	8,008	2,669
Cascade	3						3	7,096	2,365
Chouteau	14		1	3		9	27	48,984	1,814
Daniels	1						1	8,300	8,300
Dawson	4						4	33,907	8,477
Fallon	1			2	7		10	92,966	9,297
Fergus	4			2			6	6,802	1,334
Garfield	2						2	10,650	5,325
Glacier	5			4	17	3	29	100,185	3,455
Granite	1						1	6,302	6,302
Hill	12		5	23		27	67	117,634	1,756
Liberty	6		2	6	7	12	33	87,172	2,642
McCone	1						1	9,530	9,530
Musselshell	16	1		22	11		50	205,680	4,114
Petroleum	10			2	1		13	50,676	3,898
Phillips	4			9		44	57	89,776	1,575
Pondera	7		5	12	13	14	51	99,393	1,949
Powder River	3			5	5		13	59,734	4,595
Richland	6	8		3	32		49	540,471	11,030
Roosevelt	11	6		6			23	252,779	10,990
Rosebud	10			19	8		37	192,369	5,199
Sheridan	9	3		4	6		22	221,197	10,054
Stillwater	1						1	5,196	5,196
Sweetgrass	1						1	5,916	3,746
Teton	1			3			4	4,756	1,189
Toole	5		2	42	10	50	109	220,938	2,027
Treasure	1						1	5,851	5,851
Valley	5			2		18	25	53,476	2,139
Wibaux	4	2		1			7	74,210	10,601
Yellowstone	3				1		4	13,489	3,372
TOTALS	179	21	15	232	123	223	793	2,970,557	3,746


CRUDE OIL PRODUCTION- 1942 - 1978
THOUSAND B.O.P.D.
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1942
43
44
45
46
47
48
49
1950
51
52
53
54
55
56
57
58
59
1960
61
62
63
64
65
66
67
68
69
1970
71
72
73
74
75
76
77
78
POWDER RIVER BASIN DISCOVERY
WILLISTON BASIN DISCOVERY
SOUTHEASTERN MONTANA (Powder River Basin)
NORTHEASTERN MONTANA (Williston Basin)
SOUTH CENTRAL MONTANA (Big Horn Basin)
CENTRAL MONTANA (Big Snowy Uplift)
NORTHERN MONTANA (Sweetgrass Arch-Bearpaw Uplift)
19,871 (BOPD)
41,380 (BOPD)
3,002 (BOPD)
9,160 (BOPD)
10,058 (BOPD)
NORTHERN MONTANA
NORTHEASTERN MONTANA
CENTRAL MONTANA
SOUTH CENTRAL MONTANA
SOUTHEASTERN MONTANA

GAS PRODUCTION DATA — 1978

1 4.73 PSIA @ 60° F

Field	County	Producing Formations	1978 Production MCF
Natural Gas			
Alma	Liberty	Blackleaf, Bow Island and Sawtooth	4,643
Battle Creek	Blaine	Eagle	1,033,581
Bears Den	Liberty	Sawtooth and Sunburst	818
Big Coulee	Golden Valley and Stillwater	Lakota and Morrison	1,388,246
Big Rock	Glacier	Blackleaf, Bow Island	1,298,933
Black Coulee	Blaine	Eagle	49,728
Black Jack	Liberty	Sunburst, Swift, and Blackleaf	353,748
Bowdoin	Phillips, Valley	Bowdoin and Phillips	7,220,156
Bowes	Blaine	Eagle	540,002
Browns Coulee	Hill	Judith River and Eagle	27,326
Bullwacker and Area	Blaine and Chouteau	Judith River, Eagle (Virgelle)	1,488,680
Canadian Coulee	Hill, Liberty	Sawtooth	525,662
Cedar Creek	Fallon	Judith River, Eagle	1,771,217
Chip Creek	Chouteau	Eagle and Virgelle	21,810
Coal Coulee	Hill	Eagle	47,877
Conrad Butte (Ledger Field)	Pondera and Toole	Bow Island	121,247
Cutbank and Reagan	Glacier and Toole	Blackleaf, Moulton, Sunburst, Cutbank, and Madison	3,543,513
Dry Creek	Carbon	Judith River, Eagle, Frontier, Greybull, and Lakota	1,089,148
Dunkirk, North	Toole	Bow Island	371,199
East Chinook	Blaine	Judith River, Eagle	44,653
Flat Coulee	Liberty	Bow Island, Dakota, Swift and Sawtooth	83,403
Fresno	Hill	Judith River and Eagle (Virgelle)	299,618
Gold Butte	Toole	Bow Island	7,001
Grandview	Liberty	Bow Island, Madison	125,566
Gypsn Basin	Pondera	Sunburst and Swift	316,012
Hardin	Big Horn	Frontier	20,865
Haystack	Liberty	Bow Island	206,060
Highview	Teton	Madison	372,001
Keith Block	Liberty	Blackleaf, Bow Island, Sawtooth	981,653
Kevin-Sunburst-Nisku	Toole	Nisku	154,376
Kevin-Sunburst	Toole	Bow Island, Sunburst, Swift, Sun River	322,958
Kicking Horse	Toole	Bow Island, Sunburst, Sawtooth	154,447
Kinyon Coulee Area	Toole	Bow Island	76,119
Lake Basin	Stillwater	Claggett, Eagle-Virgille, Telegraph Creek, Frontier	265,594
Leroy	Blaine	Judith River, Eagle-Virgelle	622,024
Liscom Creek	Custer	Shannon	198,438
Lohman	Blaine	Judith River, Eagle	9,166
Middle Butte	Toole	Bow Island	95,850
Middle Dry Creek	Carbon	Frontier, Lakota	25,978
Miners Coulee	Toole	Bow Island, Sunburst, Swift	257,508
Mt. Lilly	Liberty	Madison	62,436
North Clark Fork	Carbon	Lakota	603
Plevna	Fallon	Judith River	39,073
Phantom	Toole	Sunburst, Swift	115,830
Prairie Dell	Toole	Bow Island, Swift	541,945
Pumpkin Creek	Custer	Shannon	164,268
Rapelje	Stillwater	Judith River, Claggett, Eagle-Virgelle	189,490
Rocky Boy Area	Hill	Eagle	119,925
Rudyard	Hill	Sawtooth	139,906
Sage Creek	Liberty	Blackleaf	3,107
Sawtooth Mt. and Area	Blaine	Judith River, Eagle	1,624,173
Sherard	Blaine, Chouteau	Judith River, Eagle	841,631
Snoose Coulee	Liberty	Bow Island	132,894
South Devon	Toole	Bow Island	135,094
South Shelby	Toole	Bow Island	390,962
Strawberry Creek ARea	Toole	Bow Island	66,030
Swanson Creek	Phillips	Phillips	51,730
Tiger Ridge	Blaine-Hill	Judith River-Eagle	13,175,221
Utopia	Liberty	Sawtooth	261,145
West Butte	Toole	Bow Island, Sawtooth, Madison	15,935
Whitlash-Arch-Apex	Liberty-Toole	Bow Island, Swift	917,597
Willow Ridge	Toole	Bow Island	89,379
TOTAL NATURAL GAS			44,615,198
Associated Gas			
Bell Creek	Powder River	Muddy	469,384
Big Muddy	Roosevelt	Interlake, Red River	24,871
Blue Hills	Richland	Red River	26,806
Cabin Creek	Fallon	Mission Canyon, Interlake, Red River	37,189
Culbertson	Roosevelt	Red River	52,529
Elk Basin	Carbon	Ten-Sleep	75,104
Fairview	Richland	Winnipgosis, Red River	390,380
Four Mile Creek	Richland	Red River	33,328
Four Mile Creek West	Richland	Red River	32,104
Glendive	Dawson	Red River	2,637
Mon Dak West	Richland	Mm, Mmc, Si, Or	193,407
Otis Creek	Richland	Red River	31,970
Pennel	Fallon	Mm, Si, Orr	42,584
Pine	Dawson, Paririe, Fallon, Wibaux	Interlake, Red River	----
Richland	Richland, Roosevelt	Mm, Dw, Si, Or	546,771
Sioux Pas	Richland	Mm, Si, Or	162,552
Sioux Pas, East	Richland	Red River	11,782
Sioux Pas, Middle	Richland	Red River	76,460
Sioux Pas, North	Richland	Red River	53,678
South Clarks Fork	Carbon	Greybull	77,322
Sumatra	Rosebud	Tyler	112,314
Tule Creek	Roosevelt	Nisku	71,525
TOTAL ASSOCIATED GAS			2,524,697
			44,615,198
TOTAL GAS PRODUCED — 1978			47,139,895

NATURAL GAS IMPORTED MMCF

Canada	28,101
Wyoming	33,889
Dakotas	500
	51,490 MMCF

NATURAL GAS EXPORTED MMCF

Canada	13,367
Dakotas	18,325
	31,692 MMCF

BARRELS OF CRUDE OIL REFINED IN MONTANA — 1978

	CONTINENTAL OIL CO.	EXXON COMPANY	FARMERS UNION	KENCO REF. INC.	PHILLIPS PET. CO.	WESCO REF. CO.	TOTAL
Total Montana Oil	2,969,567	518,778	1,019,311	961,282	1,571,202	1,807,498	8,847,638
Canadian Oil Imported	9,057,374	4,413,195	7,350,685	---	547,630	---	21,368,884
North Dakota Oil Imported ...	---	---	64,123	5,163	---	---	69,286
Wyoming Oil Imported.....	3,404,129	9,432,447	4,676,760	---	---	---	17,513,336
Total Montana, Canadian North Dakota, & Wyoming Oil	15,464,939	14,485,769	12,838,844	966,445	2,116,422	1,821,428	47,738,947

PERCENTAGE OF CRUDE OIL REFINED

	Montana	Canada	North Dakota	Wyoming
Year: 1975	18.56%	40.28%	---	41.16%
Year: 1976	16.93%	46.69%	---	36.38%
Year: 1977	18.49%	43.32%	.41%	37.78%
Year: 1978	18.51%	44.71%	.14%	36.64%

AVERAGE BARRELS PER DAY

Montana	Canada	North Dakota	Wyoming	Total
24,463	53,077	---	54,237	131,777
23,272	64,192	---	50,029	137,493
24,461	57,317	549	49,994	132,320
24,240	58,545	190	47,982	130,957

REFINING FIVE YEAR COMPARISON

1974	1975	1976	1977	1978
48,052,776	48,098,535	50,322,433	48,297,000	47,738,947

SUMMARY OF SECONDARY RECOVERY PROJECTS - JANUARY 1, 1979

Field, Formation	Operator	Type of Project	Injection Pattern	Date Injections Commenced	Cumulative Injections 1000's Bbls. or MCF	Avg. Daily Inj. Rate Bbls. or MCF	No. of Injection Wells	Source of Injection Media and Remarks
Ash Creek, Shannon	Transocean, Inc.	Waterflood	Peripheral	10-15-64	1,191	212	4	Parkman
Bell Creek, Unit "A", Muddy	Gary	Waterflood	Peripheral	7- 1-70	194,227	38,000	31	Madison
Bell Creek, Unit "B", Muddy	Gary	Waterflood	Peripheral	10- 1-70	27,865	7,852	13	Madison
Bell Creek, Ranch Creek Unit, Muddy	Gary	Waterflood	Peripheral	7- 1-71	32,483	9,200	10	Madison
Bell Creek, Unit "C", Muddy	Gary	Waterflood	Peripheral	12- 1-71	16,780	6,488	6	Madison
Bell Creek, Unit "D", Muddy	Gary	Waterflood	Peripheral	8-72	20,233	7,638	11	Madison
Bell Creek, Unit "E", Muddy	Gary	Waterflood	Peripheral	8-72	15,443	6,055	15	Madison
Big Wall, Tyler B	Texaco, Inc.	Waterflood	Peripheral	8-20-66	21,920	5,592	2	Produced, Amsden & Tyler
Blackfoot, Cut Bank	Croft Petroleum Co.	Waterflood	Random	11-76	384	545	4	Madison
Border, New, Cut Bank	B G & O Co.	Waterflood	Random	6- 1-73	302	- Terminated		Madison
Border, Old, Cut Bank	B G & O Co.	Waterflood	Random	6- 1-73	812	200	2	Madison
Bowes, Sawtooth	Texaco, Inc.	Waterflood	Random	5-23-61	8,106	707	5	Madison
Cabin Creek, Siluro-Ord.	Shell	Waterflood	Semi-Peripheral	6-12-59	182,334	37,500	28	Produced & Fox Hills
Cat Creek, East Dome, Swift	Hess	Waterflood	Semi-Peripheral	7-30-70	563	299	4	Third Cat Creek
Cat Creek, (Unit 1), 1st & 2nd Cat Creek	Farmers Union	Waterflood	Semi-Peripheral	10-10-62	12,344	1,786	5	Third Cat Creek
Cat Creek, (Unit 2), 1st & 2nd Cat Creek	Farmers Union	Waterflood	Semi-Peripheral	12- 1-59	18,584	1,246	5	Third Cat Creek
Cat Creek, Mosby, Swift	Farmers Union	Waterflood	Random	7-67	4,516	761	6	Third Cat Creek
Cat Creek, Mosby, Amsden	Farmers Union	Waterflood	Random	6- 1-71	160	88	1	Third Cat Creek
Cut Bank, Marina West, Cut Bank	B G & O Co.	Waterflood	5-Spot	6-72	2,075	479	8	Madison
Cut Bank, Tweedy, Cut Bank	B G & O Co.	Waterflood	5-Spot	6-72	986	233	4	Madison
Cut Bank, NE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	6- 2-63	13,491	227	5	Madison
Cut Bank, NW, Cut Bank	Phillips	Waterflood	5-Spot	1-30-62	16,009	1,364	13	Madison
Cut Bank, NC, Cut Bank	Phillips	Waterflood	5-Spot	5-78	428	1,747	16	Madison
Cut Bank, SC, Cut Bank	Union	Waterflood	5-Spot	5-63	35,799	4,295	23	Madison
Cut Bank, SE, Cut Bank	Texaco, Inc.	Waterflood	5-Spot	4-62	57,671	7,472	47	Madison
Cut Bank, SW, Cut Bank	Phillips	Waterflood	5-Spot	9-62	88,123	15,588	82	Madison
Cut Bank, Lander "A"	Phillips	Waterflood	Random	4-65	1,578	140	2	Madison
Cut Bank, Lander	Texaco, Inc.	Waterflood	Random	7-64	8,128	649	3	Eagle
Cut Bank, McGuiness, Moulton	Union	Waterflood	Random	12-62	4,629	797	1	Madison
Cut Bank, Cut Bank	Tesoro	Waterflood	5-Spot	9- 1-71	4,527	1,558	11	Madison
Cut Bank, Two Medicine, Cut Bank	Miami	Waterflood	Random	12-67	43,294	3,495	75	Madison
Cut Bank, Moulton, Moulton	Union	Waterflood	Random	11-69	16,501	- -	0	Madison, Discontinued
Dalquist Secondary Unit, Cut Bank	Union	Waterflood	Random	- -	- -	- -	-	Madison-Not Initiated
Darling, State, Moulton	B G & O Co.	Waterflood	Random	2-67	2,467	- -	0	Madison, Discontinued
Darling, NE Unit, Moulton	Ralph Fair	Waterflood	Random	2-68	5,510	357	2	Produced Water
Darling, South Swenson, Moulton	B G & O Co.	Waterflood	Random	2-67	7,548	121	3	Madison
Dwyer, Ratcliffe	Phillips	Waterflood	Peripheral	10-68	2,295	1,441	5	Madison
Elk Basin, Embar-Tensleep	Amoco	Gas Injection	Random	12-72	2,331	- -	0	Produced Gas (none)
Elk Basin, Frontier	Amoco	Waterflood	Random	1926	3,612	1,364	2	Madison
Elk Basin, Unit 2, Tensleep	Amoco	Waterflood	Random	1949	2,431	- -	-	Produced Water
Elk Basin, Madison	Amoco	Waterflood	Peripheral	1962	69,643	14,117	3	Produced Water
Elk Basin, NW, Tensleep	Atlantic-Richfield	Waterflood	Semi-Peripheral	5-76	4,930	216	2	Madison
Fairview, NW Unit, Red River	Superior	Gas Injection	Crestal	10-25-67	3,711	1,085	1	Purchased Gas
Flat Coulee, Swift	Phillips	Waterflood	Peripheral	2- 1-72	4,826	1,813	14	Eagle
Flat Lake, Ratcliffe	Chevron	Waterflood	Random	6- 1-71	19,636	12,542	11	Produced Water
Frannie, Tensleep	Continental	Waterflood	Random	9-70	6,243	557	1	Produced Water
Fred & George, Sunburst	Fulton	Waterflood	Random	7-70	20,732	7,612	2	Madison & Eagle
Gas City, Red River	Shell	Waterflood	Semi-Peripheral	10-31-65	12,671	9,233	3	Mission Canyon
Goose Lake, Ratcliffe	Cotton Petroleum	Waterflood	Semi-Peripheral	1-73	6,341	2,394	3	Produced Water
Jim Coulee, Tyler B	McAlester Fuel	Waterflood	Semi-Peripheral	6- 1-72	3,679	1,307	3	Third Cat Creek
Keg Coulee, NW Unit, Tyler B	Flatt Corporation	Waterflood	Semi-Peripheral	8-31-66	5,283	194	2	Madison
Keg Coulee, East A & C, Tyler	Juniper Petroleum Corp.	Waterflood	Semi-Peripheral	12-24-69	3,609	186	3	Third Cat Creek
Keg Coulee, South, Tyler	B G & O Co.	Waterflood	Semi-Peripheral	1- 1-70	3,015	967	2	Madison
Kelley, Tyler	McAlester Fuel	Waterflood	Random	7-69	2,540	756	3	Third Cat Creek
Kevin-Sunburst, Madison	B G & O Co.	Waterflood	Random	8-64	7,374	2,597	10	Madison
Kevin-Sunburst, Madison	Texaco, Inc.	Waterflood	Semi-Peripheral	8-64	9,884	1,619	9	Madison
Laird Creek, Swift	Burlington-Northern, Inc.	Waterflood	Semi-Peripheral	2-25-77	461	485	3	Sawtooth
Little Beaver, Red River	Shell	Waterflood	Semi-Peripheral	8- 7-66	29,866	6,102	13	Produced Water
Little Beaver East, Red River	Shell	Waterflood	Semi-Peripheral	4-65	11,892	2,753	6	Red River-Minnelusa
Lookout Butte, Red River	Shell	Waterflood	Semi-Peripheral	4-67	25,414	7,045	11	Minnelusa
Lookout Butte, Lodgepole	Shell	Waterflood	Semi-Peripheral	2-69	2,928	1,170	1	Minnelusa
Pennel, Red River	Shell	Waterflood	Random	6-28-69	71,130	30,107	52	Dakota & Produced
Pine, South, Red River	Shell	Waterflood	Semi-Peripheral	3-59	157,098	25,395	30	Fox Hills & Produced
Pine, North, Silurian-Ord.	Shell	Waterflood	Semi-Peripheral	3-68	18,256	4,140	10	Lodgepole
Prichard Creek, Sunburst	Fulton Producing Co.	Waterflood	Random	4-73	58	145	1	Eagle
Ragged Point, Tyler	B G & O Co.	Waterflood	Semi-Peripheral	12- 3-66	7,101	422	4	Third Cat Creek
Reagan, Madison	Union	Gas Injection	Random	8-61	4,915	451	2	Gas Injection
Reagan, Madison	Union	Waterflood	Random	7-73	1,401	778	4	Produced Water
Red Creek, Cut Bank	Exxon	Waterflood	5-Spot	6-65	12,605	2,591	5	Madison
Richey, SW, Dawson Bay & Interlake	Atlantic-Richfield	Waterflood	Random	12-65	2,384	197	1	Fox Hills
Stensvad, Tyler	Ada Resources, Inc.	Waterflood	Semi-Peripheral	2-63	28,070	192	2	Madison
Sumatra, Tyler	Buttes Resources	Waterflood	- -	- -	- -	- -	- -	Not Initiated
Sumatra, West, Tyler	Continental	Waterflood	Semi-Peripheral	10-68	22,858	11,496	9	Produced Water
Sumatra, Central, Tyler	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	80,273	23,618	12	Madison & Produced Water
Sumatra, NE, Tyler	Texaco, Inc.	Waterflood	Semi-Peripheral	9-16-69	5,078	1,780	5	Madison & Produced Water
Sumatra, SE, Tyler	B G & O Co.	Waterflood	Semi-Peripheral	12- 1-69	11,001	4,314	7	Madison
Sumatra, Grabe, Tyler	Farmers Union	Waterflood	Random	6-16-75	276	236	1	Judith River
Winnett Junction, Tyler	Petro-Lewis	Waterflood	Random	10- 1-77	1,272	3,484	1	Produced

1978 - OIL AND GAS DISCOVERIES*, EXTENSIONS**, AND NEW PAY ZONES***

COUNTY	OPERATOR-WELL NAME AND LOCATION	FIELD	TOTAL DEPTH	INITIAL POTENTIAL Oil, B/D	Gas, MCF	PRODUCING FORMATION	DATE COMPLETED
HILL	Xeno, Inc., S.E. Saddle 11-16, NE SW 16-35N-14E	Red Rock*	2,571		Shut-in	Eagle	8-8-78
	Polumbus Petroleum Corporation, Knapp 3-10, NW SE 3-36N-13E	Wild Horse*	2,450		Shut-in	Eagle	1-18-78
	Xeno, Inc., N.E. Saddle 5-32, SW NW 32-36N-14E	Rough Ridge*	2,590		Shut-in	2nd Wht.Spks	9-10-78
	Montana Power Company, State 9-36, NE SE 36-36N-14E	E. Rough Ridge*	3,010		Shut-in	Eagle	7-28-78
LIBERTY	Burton Hawks, Inc., Shettel 1, C SW¼ 1-32N-6E	Chester*	3,265		Shut-in	Sawtooth	8-20-78
	Montana Power Company, Laas 9-15, NE SE 15-33N-4E	Utopia***	1,750		Shut-in	Bow Island	1-16-78
MUSSELSHELL	Juniper Petroleum Corporation, State 34-34, SW SE 34-9N-24E	Mason Lake***	4,285	66		1st Cat Creek	7-26-78
	True Oil Company, Bloom 42-22, SE NE 22-10N-30E	Tippy Butte*	5,257	114		Tyler	6-21-78
PONDERA	Milan R. Ayers, State 3, SW SE 28-29N-3W	N. Conrad*	1,468		Shut-in	Bow Island	12-12-78
	Milan R. Ayers, L. Lightner 1, NE NW 22-29N-4W	Williams*	1,689		490	4th Bow Island	1-28-78
	Milan R. Ayers, Lettenga 2, NE SW 20-30N-3W	S. Marias Riv.*	1,542		Shut-in	Bo.Isl.,2 Wht.Spk	6-23-78
	Milan R. Ayers, Hughes 1, NE NW 12-30N-4W	Bull Head*	1,755		Shut-in	2nd. Wht. Spks.	7-18-78
	Milan R. Ayers, Sheble Ranch 1, NE NW 24-30N-6W	Lake Francis*	2,535		Shut-in	3rd Bow Island	7-2-78
RICHLAND	Lamar Hunt, Clark 1, SW NE 31-20N-57E	Burns Creek**	11,700	95		Red River	5-26-78
	Farmers Union Central Ex., Buxbaum 1,C E½ SE¼ 1-21N-57E	Fox Creek**	12,228	113		L. Interlake	3-15-78
	True Oil Company, Haffner 34-12, SW SE 12-22N-58E	Vaux**	12,375	117		Ratcliffe,Mis.Cy.	2-12-78
	Texaco, Inc., Burl 1, SW SE 19-22N-58E	N. Fox Creek**	12,302	60		Mission Canyon	11-1-78
	Pennzoil Company, Coon 2, E½ SW¼ 25-23N-57E	E. Putnam***	12,535	50		Mission Canyon	2-15-78
	Amoco Production Company, Alton-Christn.1,NW SW 9-23N-58E	S.Brorson***	12,552	65		Bakken-Red Riv.	2-12-78
	Farmers Union Central Ex., F. Anderson 2-25, NW NE 25-23N-58E	Vaux**	9,350	68		Mission Canyon	11-27-78
	Petroleum Inc., Candee 1-29, NE NE 29-24N-59E	Ft. Gilbert**	9,804	110		Mission Canyon	8-8-78
	Brownlie, Wallace, Armstrong &Bender,Johnson 9-14, SWSW 9-25N-59E	Fairview**	9,550	39		Madison	8-6-78
	Helmerich and Payne, Inc., Anderson 1-30, NW SW 30-26N-58E	N. Sioux Pass**	12,692	256		Red River	8-30-78
ROOSEVELT	Terrapet LTD, Inc., Harmon 1-29, NE NE 29-27N-58E	Oxbow*	12,760	150		Red River	11-27-77
	Terrapet LTD, Inc., Sundheim 1, NE SW NW 35-28N-57E	W. Bainville*	12,316	60		Ratcliffe	9-27-78
	Terrapet LTD, Inc., Triplett 1, NW NW 1-29N-55E	Rocky Point *	11,900	165		Red River	8-6-78
	Terrapet LTD, Inc., Rudolph 1, SW NE 8-29N-57E	McCabe*	12,500	90		Ratcliffe	5-20-78
	True Oil Company, Krogedal 31-5, NW NE 5-30N-57E	Singletree*	12,075	398		Red River	6-29-78
	Diamond Shamrock, Sunmark Crusch 1, NW NW 18-30N-59E	Anvil*	12,670	1,040		Red River	10-21-78
SHERIDAN	William H. Hunt Trust Est., Miller 1, NE NW 9-31N-58E	Sunnyhill*	12,000	294		Red River	1-23-78
	Patrick Petroleum Corporation, Butler-Spaulding 1,SENW 18-32N-57E	Colored Canyon*	11,522	320		Red River	2-3-78
	Gulf Oil Corporation, Brekke 1, W½ NW 27-33N-56E	Reserve**	11,322	99		Red River	4-20-78
	Gulf Oil Corporation, Guenther 1-8, SE SE 8-33N-58E	Clear Lake***	11,410	55		Ratcliffe	9-29-78
	Patrick Petroleum Corporation, Olson-Rasmussen 1,SWSW 28-33N-58E	S. Clear Lake*	11,442	290		Red River	10-28-78
TOOLE	Thunderbird Oil and Gas, Inc., Grinde 7-35, SW NE 35-34N-1E	Unnamed*	1,860		Shut-in	Bow Island	5-26-78
	Diamond Shamrock, Underdahl 321-33, NE NW 33-31N-2W	Marias River**	1,232		Shut-in	Bow Island	5-19-78
	Westcoast Oil and Gas Corporation, Fee 1, SE SW 14-34N-4W	Kevin-Sunburst***	2,006		Shut-in	Sawtooth	10-3-78
VALLEY	Joseph J.C.Paine and Associates, Federal 1, Lot 6 2-29N-36E	Vandalia***	1,779		85	Eagle,Bowdoin	11-2-78
WIBAUX	Shell Oil Company, Douglas 42-18, SE NE 18-11N-61E	Caryle*	11,260	290		Red River	9-12-78
	Shell Oil Company, Lindstrom 14X-29, SW SW 29-11N-61E	Caryle**	10,914	35		Red River	12-3-78

OIL AND GAS FIELDS

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
ALMA						
Blackleaf (L. Cret.)			Structural	Depletion	640-acre spacing units. Location to be no closer than 990' from spacing unit boundary. (Order 19-77.)	None
Bow Island (L. Cret.)		1	Strat.			
Sawtooth (M. Jur.)		1				
ANTELOPE						
Swift (U. Jur.)		7	Structural	Water Drive	(Listed as part of Cat Creek Field.)	None
Kootenai (L. Cret.)		1				
ANVIL						
Red River (Ord.)		1	Structural-Strat.	Water Drive	State-wide.	None
ARCH APEX						
Bow Island (L. Cret.) Gas		32	Strat.	Volumetric	330' from legal subdivision; 2400' from any other drilling or producible gas well producing from the same reservoir; 75' topographic tolerance. (Order 4-60.) (Sometimes called Colorado Blackleaf pool. (Swift) State-wide.	None
	(Shut-in)	5				
Swift (Jurassic) Gas		1	Strat.	Volumetric		
Sunburst (L. Cret.) Oil		6	Strat.	Depletion		
	(Shut-in)	6				
ASH CREEK						
Shannon (U. Cret.)		3	Structural	Partial Water Drive and Depletion	Spacing waived within utilized portion of field except no well may be drilled closer than 660' from unit boundary. (Order 4-65.)	Waterflood started October, 1964. (Orders 22-64, 15-66.)
	(Shut-in)	3				
BADLANDS						
Eagle (U. Cret.) Gas		7	Structural-Strat.	Volumetric	Drilling and spacing units allow one well per governmental section to be located anywhere within a section but no closer than 990' from a section line (Order 22-78.)	None
BAINVILLE						
Red River (Ord.)		1	Structural-Strat.	Depletion-Water Drive	State-wide.	Produced water disposed into Red River formation. (Order 7-A-75.)
BAINVILLE, WEST						
Red River (Ord.)		1	Structural-Strat.	Depletion-Water Drive	320-acre spacing units to consist of two governmental quarter sections that may be in either one or two governmental sections. Location to be no closer than 660' to the unit boundary or closer than 1650' to another producing well within the field. (Order 19-78.)	None
BANNATYNE						
Swift (U. Jur.)		8	Structural	Comb. Water Drive and Volumetric	Center of 10-acre tracts, 50' topographic tolerance. Commingling permitted. (Order 20-58.)	Pilot waterflood of Swift suspended in 1963.
Sun River (U. Miss.)	(Shut-in)	6				
BATTLE CREEK						
Eagle (U. Cret.) Gas		20	Structural	Volumetric	State-wide.	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BEARS DEN					
Sunburst (L. Cret.) Gas	2	Structural	Depletion and Gas Cap Drive	State-wide.	None
Swift (U. Jur.) Oil	7				
Sawtooth (Jur.) Gas	1				
BELL CREEK					
Muddy (L. Cret.) Oil & Gas	172	Strat.	Depletion	Originally 40-acre spacing units with location 660′ from unit boundary with 150′ tolerance for topographic reasons only. (Order 37-67, 39-67, 50-67, 1-69, 17-70.) Field now unitized.	Six areas unitized (Unit "A", "B", Ranch Creek, "C", "D", and "E".) Floods used Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 35-71, 36-71.)
Gas (Shut-in)	1				
BELL CREEK SOUTHEAST					
Muddy (L. Cret.) Gas	1	Strat.	Depletion	160-acre spacing units, wells 660′ from spacing boundary. (Order 31-72.)	None
(Shut-in)	3				
BENRUD					
Nisku (Dev.)	2	Structural	Water Drive	160-acre spacing units with permitted location within a 1320′ square in center of quarter section. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62.)
BENRUD, EAST					
Nisku (Dev.)	3	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 64-62, 32-66, 4-A-73.)
BENRUD, NORTHEAST					
Nisku (Dev.)	1	Structural	Water Drive	Same as Benrud Field. (Order 6-65.)	Water disposal into Judith River formation. (Order 32-66.)
BERTHELOTE					
Sunburst (L. Cret.)	1	Strat.	Depletion	40-acre spacing units with well no closer than 330′ from lease or property line and no closer than 660′ between wells. (Order 18-66.)	None
(Shut-in)	1				
BIG COULEE					
3rd Cat Creek (L. Cret.) Gas	8	Structural	Water Drive	State-wide.	None
Morrison (U. Jur.) Gas	1	Structural	Water Drive		
Frontier (U. Cret.) (Shut-in)	1	Structural-Strat.	Water Drive		
BIG GULLY					
L. Tyler (Penn.)	3	Strat.	Depletion	State-wide.	None
BIG MUDDY CREEK					
Interlake (Sil.) (Shut-in)	1	Structural	Water Drive	One well per 320 acre spacing unit with well no closer than 660 feet from boundary of four east-west units. (Order 4-75.)	None
Red River (Ord.)	3				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BIG ROCK						
Blackleaf (L. Cret.) Gas		19	Strat.	Depletion	640-acre spacing units for Blackleaf "A" formation. Location to be no closer than 990' to any governmental section line. (Order 31-78.)	None
	(Shut-in)	6				
Bow Island (L. Cret.) Gas		9				
BIG WALL						
Amsden (Penn.)		3	Structural	Water Drive	Spaced by old state-wide spacing; 330' from lease or property line, 990' between wells in same reservoir. (Order 12-54.)	Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August, 1966. (Order 22-66.) Excess produced water disposed into the Tyler "B" formation. (Order 13-A-77.)
Tyler (Penn.)		10	Structural-Strat.	Depletion		
	(Shut-in)	5				
BIG WALL, NORTH						
Stensvad (Penn.)		1	Structural-Strat.	Water Drive	State-wide.	None
BLACK COULEE						
Eagle (U. Cret.) Gas		3	Structural-Strat.	Water Drive	One well per 320-acre spacing unit, two adjacent quarter sections, direction operator's option. Wells to be at least 990' from unit boundary. (Order 6-73.)	None
	(Shut-in)	1				
BLACKFOOT						
Cut Bank (L. Cret.)		6	Strat.	Depletion	One well only per 40-acre spacing unit, 300' tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57.)	Waterflood started November, 1976. (Order 34-76.)
BLACK JACK						
Sunburst (L. Cret.) Gas		12	Strat.	Depletion	One gas well per 160-acres, no closer than 660' from boundary of each unit. (Order 3-69.) State-wide spacing. Order 3-69 amended to include Blackleaf in spacing and field rules for gas. (Order 4-74.) Blackleaf gas pooled. (Order 3-75.)	None
Swift (U. Jur.) Gas & Oil		2				
Blackleaf (U. Cret.) Gas		3				
	(Shut-in)	1				
BLUE HILL						
Red River (Ord.)		1	Structural	Water Drive	State-wide.	None
BORDER						
Cut Bank (L. Cret.) Oil & Gas		10	Strat.	Depletion	Oil: Unitized into New and Old Border fields. Unitized 6-1-73. (Orders 8-73, 9-73.) Gas: 330' from boundary of legal subdivision. 2,400' between wells in same formation on same lease. 75' topographic tolerance. (Order 7-54.)	Waterflood approved. (Orders 8-73, 9-73, 28-73.)
BOULDER						
Duperow (Dev.)		1	Structural	Water Drive	Refer to Rule 203 (Order 16-71, Docket 14-71.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BOWDOIN					
Bowdoin & Phillips sands in Colorado Shale (U. Cret.) Gas	301	Structural	Volumetric	One well per quarter section not less than 1000' from lease boundary or less than 2000' from any gas well in same horizon. (Order 29-55.) Unitized 1958. Delineated: (Order 3-72.)	Produced water injected into Phillips Sand-Ashfield unit. (Order 10-A-77.)
(Shut-in)	65*				
	107				
*Gas wells outside boundary.					
BOWES					
Eagle (U. Cret.) Gas	27	Structural	Volumetric	660' from boundary of legal subdivision, 1320' from other wells in same formation. 75' topographic tolerance. (Order 23-54.) Order 23-54 amended by establishing 160-acre Eagle spacing units in Sec. 5, 6, 7, 8, 17, 18-31N-19E. (Order 44-75.)	None
(Shut-in)	3				
Sawtooth (M. Jur.) Oil	57	Structural	Partial Water Drive	330' from lease or property line, 990' between wells in the same formation. (Order 13-54.)	Pilot waterflood initiated in 1961 and expanded to fieldwide waterflood in 1965. (Order 6-61.) Water from Madison.
(Shut-in)	17				
BRADLEY					
Sun River (Miss.)	2	Structural	Water Drive	State-wide.	None
BRADY					
Sunburst (L. Cret.)	1	Strat.	Depletion Partial Water Drive	10-acre spacing units with 75' topographic tolerance from center of spacing unit. (Order 34-62, 55-62.)	None
(Shut-in)	2				
BREED CREEK					
Tyler (Penn.)	5	Strat.	Depletion	State-wide.	None
BRORSON					
Mission Canyon (Miss.) Oil & Gas	7	Structural	Volumetric, Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary (Mission Canyon and Red River.) (Order 5-69.) Gas to Brorson Field Plant.	None
Red River (Ord.) Oil & Gas	3				
BRORSON, SOUTH					
Red River (Ord.) Oil & Gas	5	Structural	Volumetric Water Drive	One well per 160-acre unit, no closer than 660' from unit boundary. (Order 26-68.) Gas to Brorson Field Plant. Reduced Field Area. (Order 26-77.)	None
BROWN'S COULEE					
Judith River (U. Cret.) Gas	2	Structural	Volumetric	One well per 160-acre unit with well location no closer than 660' from unit boundary. Commingling permitted with administrative approval. (Order 7-74.)	None
Eagle (U. Cret.) Gas (Shut-in)	1				
BRUSH LAKE					
Red River (Ord.) Oil & Gas	5	Structural-Strat.	Depletion Water Drive	320-acre spacing with initial nine spacing units described in. (Order 15-71 corrected.)	None
(Shut-in)	2				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
BULLWACKER					
Judith River (U. Cret.) Gas	6	Structural	Volumetric	One well per 320-acre spacing unit with well location no closer than 660' from unit boundary and 990' from field boundary. (Order 26-74.)	None
Eagle-Virgelle (U. Cret.) Gas	35				
(Shut-in)	8				
BURNS CREEK					
Red River (Ord.)	2	Structural	Depletion Water Drive	State-wide.	None
CABIN CREEK					
Mission Canyon (Miss.)	14	Structural	Water Drive	Spacing waived and General Rules No. 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 36-62.) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant.	Waterflood of Siluro-Ordovician reservoir has been expanded to full scale peripheral flood. (Orders 60-62, 30-63.)
Oil & Gas (Shut-in)	16		Depletion		
Interlake-Red River Oil & Gas (Sil.) (Ord.)	73	Structural	Water Drive, Depletion		
CANADIAN COULEE					
Sawtooth (M. Jur.) Gas	3	Structural-Strat	Volumetric	320-acre spacing units with well location no closer than 660' from unit boundary, and 990' from field exterior boundaries. (Order 18-76.)	None
(Shut-in)	1				
CANADIAN COULEE, NORTH					
Sawtooth (M. Jur.) Gas	3	Structural-Strat.	Volumetric	640-acre spacing unit. Location to be no closer than 1650' to section line. (Order 15-75.)	None
(Shut-in)	3				
CANAL					
Red River (Ord.)	1	Structural	Water Drive	320-acre spacing units consisting of East half and West half of governmental section. (Order 34-70.)	None
Mission Canyon (Miss.)	1	Structural	Depletion		
CARLYLE					
Red River (Ord.)	2	Structural	Water Drive	State-wide.	None
CAT CREEK					
Kootenai (L. Cret.) (3 sands)	34	Structural-Strat.	Water Drive	220' from lease or property line, 440' from every other well in same formation. (Order 17-55.) Five separate producing areas, East, Antelope, Mosby, West and Landheim Domes.	Three Kootenai, two Ellis, and one Amsden waterflood in progress. (Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71.) Water from Third Cat Creek sand. Waterflood modified. (Order 29-74.)
(Shut-in)	2				
Morrison (U. Jur.)	2	Structural-Strat.	Water Drive		
Ellis (U. Jur.)	16	Structural	Depletion-Water Drive		
Amsden (Penn.)	2	Structural-Strat.	Water Drive	State-wide.	
CEDAR CREEK					
Judith River (U. Cret.) Gas	75	Structural	Volumetric	1200' from legal subdivision line, 2400' from every other well in same formation. (Order 33-54.)	None
Eagle (U. Cret.) Gas	60	Structural	Volumetric	320-acre spacing units. Wells in center of NW¼ and SE¼ of each section with 200' topographic tolerance. (Order 1-61.) Field extension (Order 23-76.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
CHARLIE CREEK					
Nisku (Dev.)	1	Structural	Water Drive	320-acre spacing units, either east-west or north-south at option of operator, located no closer than 660' from spacing unit boundary and no closer than 1650' from another producing well. Spacing units may not cross section lines. (Order 66-76.)	None
Duperow (Dev.)	1	Structural	Water Drive		
CHELSEA CREEK					
Nisku (Dev.) (Abandoned)	1	Structural	Water Drive	State-wide.	None
CHINOOK, EAST					
Eagle (U. Cret.)	3	Structural-Strat.	Volumetric	State-wide.	None
CHIP CREEK					
Eagle-Virgelle (U. Cret.)	2	Structural-Strat.	Volumetric	160-acre spacing units: Location no closer than 660' from spacing unit boundary. (Order 89-76.)	None
CLARK'S FORK					
Frontier (U. Cret.) (Shut-in)	1	Structural-Strat.	Depletion	330' from quarter-quarter section line, 1320' between wells with 75' topographic tolerance. (Order 17-54.)	None
CLARK'S FORK, NORTH					
Lakota (L. Cret.) Gas & Oil	1	Structural-Strat.	Volumetric	160-acre quarter section spacing with location no closer than 660' from spacing unit boundary. (Order 23-75.)	None
CLARK'S FORK, SOUTH					
Greybull (L. Cret.) Oil & Gas	1	Structural-Strat.	Depletion-Water Drive	160-acre spacing, location no closer than 330' from quarter section line or 1320' from any other well.	None
CLEAR LAKE					
Red River (Ord.)	4	Structural	Water Drive	State-wide.	None
Mission Canyon	2				
COAL COULEE					
Eagle (U. Cret.) Gas	1	Structural-Strat.	Volumetric	One well per governmental section, to be located no closer than 990' from section line and only one well permitted per formation. (Order 25-78.)	None
COLORED CANYON					
Red River (Ord.)	1	Structural-Strat.	Water Drive	State-wide.	None
CONRAD BUTTE (See Ledger Field)					
CONRAD, SOUTH					
Dakota (L. Cret.)	1	Strat.	Depletion	10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63.)	None
(Shut-in)	3				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
COW CREEK					
Charles (Miss.)	1	Structural	Water Drive	80-acre spacing units, direction at option of operator but wells to be in SW¼ and NE¼ of each quarter section. (Order 11-69.)	None
COW CREEK, EAST					
Kibbey (Miss.)	11	Structural	Water Drive	40-acre spacing units consisting of quarter-quarter section with permitted well to be at center with 150' topographic tolerance. (Order 35-74.)	Produced water disposed into Dakota formation. (Order 30-A-75 and 61-A-76.)
CULBERTSON					
Red River (Ord.)	2	Structural-Strat.	Depletion-Water Drive	State-wide in part. Unitized as to SE¼ of Section 32, SW¼ of Section 33, N½NW¼ of Section 4, and N½NE¼ of Section 5. (Order 29-70.)	Produced water disposed into Red River formation. (Order 13-A-72.).
CUPTON					
Red River (Ord.)	10	Structural-Strat.	Water Drive	160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72.)	None
CUT BANK					
Kootenai (L. Cret.) Oil & Gas	857	Strat.	Depletion	(Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision line. 650' between wells in same formation 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54.) Gas: 330' from legal subdivision, 2400' between wells in same formation. 75' topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4 West spaced 320-acres (N½ & S½.) (Order 26-70.) *320-acre spacing units for gas; (Cut Bank) units; (E½ & W½) wells to be located no closer than 330' from legal subdivision line nor less than 2400' from drilling or producible well producing from same reservoir. (Orders 82-76, 6-77.)	There are 18 waterfloods in progress. Water from Eagle and Madison, or produced. Produced water disposed into Madison formation. (Order 22-A-74, 55-A-77.)
Madison (Miss.) Oil & Gas	33	Strat.	Water Drive		
(Gas only) (Shut-in)	29				
Cut Bank (L. Cret.) Gas	145	Strat.	Depletion		
(Shut-in)	16				
Sunburst (L. Cret.) Gas	5	Strat.	Depletion		
(Shut-in)	3				
Moulton (L. Cret.) Gas	17	Strat.	Depletion		
(Shut-in)	20				
DAGMAR					
Red River (Ord.)	2	Structural	Water Drive	State-wide.	None
DARLING					
(Included as part of Cut Bank Field)					
DEAN DOME					
Greybull (L. Cret.) Gas (Shut-in)	1	Structural	Water Drive	State-wide. Oil ring below gas cap.	None
Oil	1	Structural	Water Drive		
DEER CREEK					
Interlake (Sil.)	1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 23-55 & 14-59.) Commingling of production permitted upon approval of Commission Petroleum Engineer. (Order 18-63.)	Excess produced water is disposed into Dakota and Lakota formations. (Orders 6-56 & 3-58.) Two Silurian wells shut-in.

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
DELPHIA						
Amsden (Penn.)		1	Structural	Water Drive	State-wide.	None
DEVIL'S BASIN						
Heath (U. Miss.)		4	Structural	Depletion	State-wide.	None
DEVON						
Blackleaf (U. Cret.) Gas	(Shut-in)	21	Strat.	Volumetric	State-wide.	None
Kootenai (L. Cret.) Oil	Depleted		Strat.	Depletion	State-wide.	None
DEVON, SOUTH						
Bow Island (L. Cret.) Gas		1	Strat.	Volumetric	Drilled on state-wide spacing. Unitized for primary production. (Order 28-71, corrected.)	None
	(Shut-in)	10				
DRY CREEK						
Eagle (U. Cret.) Gas		1	Structural-	Volumetric	State-wide.	None
Judith River (U. Cret.)	(Shut-in)	2	Strat.		Field re-delineated. (Order 8-70.)	
Frontier (U. Cret.) Gas		9	Structural	Volumetric	Six additional gas storage wells, west end of structure.	
Greybull (L. Cret.) Gas		2	Structural-	Volumetric-		
Greybull (L. Cret.) Oil		6	Strat.	Depletion		
DRY CREEK MIDDLE						
Frontier (U. Cret.) Gas		1	Structural-	Volumetric	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option with permitted well no closer than 660' from spacing boundary. (Order 25-75.)	None
Lakota (L. Cret.) Gas		1	Structural- Strat.	Volumetric		
DRY CREEK, WEST						
Greybull (L. Cret.) Oil & Gas (Gas)		1	Structural- Strat.	Volumetric Depletion	160-acre spacing units; well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 43-78.)	None
DRY CREEK (Shallow Gas)						
Judith River (U. Cret.)		2	Structural	Volumetric	160-acre spacing units; (all formations capable of producing gas from the top of the Cody to the surface). One well per horizon per spacing unit to be located no closer than 660' from unit boundary. (Order 54-76.)	None
Eagle (U. Cret.)		1	Structural- Strat.	Volumetric		
Virgelle (U. Cret.)		1				
DUNKIRK, NORTH						
Bow Island (L. Cret.) Gas		9	Strat.	Water Drive	One well per governmental section per zone or horizon. Each producing well to be located anywhere within section but no closer than 990 feet from section line. (Order 25-77.) Field enlargement. (Order 64-78.)	None
DWYER						
Ratcliffe (Miss.)		10	Structural-	Water Drive-	160-acre spacing units; well location in center of SE¼ of spacing unit with 175' topographic tolerance. (Orders 25-60, 29-61.)	Produced water disposed into Dakota formation. (Order 26-63.) Waterflood. (Order 20-68.)
	(Shut-in)	5	Strat.	Volumetric		

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
EAGLE SPRING					
Bow Island (L. Cret.) Gas	2	Structural	Depletion	One well per governmental section per zone, located anywhere but no closer than 990' from section line for all gas zones above the top of the Kootenai. (Order 4-78.)	None
EAST KEITH & KEITH					
Bow Island (L. Cret.) Gas	7	Structural	Water Drive	State-wide, except unitized portions spaced by (Order 22-62.) Pooling (Order 19-66.)	None
(Shut-in)	1				
Black Leafe (L. Cret.) Gas	15				
Sawtooth (Jur.) Gas	6				
(Shut-in)	1				
ELK BASIN (Mont. Portion)					
Frontier (U. Cret.)	12	Structural	Gravity Drainage	Rule No. 203 (Spacing) is waived within Unit Area. (Order 10-61.) Gas to Elk Basin gasoline plant.	Frontier: Water injection. (Order 1-72.) Embar - Tensleep pressure maintenance by crestal gas injection. Waterflood approved in 1966. (Order 5-66.) Madison: Water injection. (Order 17-61.)
(Shut-in)	8				
Embar-Tensleep (Perm., Penn.)	18	Structural	Gravity Drainage		
Oil and Gas (Shut-in)	13				
Madison (Miss.)	22	Structural	Water Drive		
ELK BASIN, NORTHWEST					
Frontier (U. Cret.)		Structural	Depletion	Spacing waived within unitized portion except that bottom of hole be no closer than 330' from unit boundary and there be at least 1320' surface distance between wells in same formation; 75' topographic tolerance. (Orders 43-63, 28-64.) Gas to Elk Basin gasoline plant.	Frontier: Waterflood in progress. Embar - Tensleep: Waterflood. (Order 3-67, 6-74.) Madison, produced water.
(Shut-in)	7				
Embar-Tensleep (Perm., Penn.)	4	Structural	Gravity Drainage		
Oil and Gas					
Madison (Miss.)	2	Structural	Water Drive		
(Shut-in)	1				
ENID, NORTH					
Red River (Ord.)	1	Structural-Strat.	Water Drive	State-wide.	None
ETHRIDGE AREA					
Bow Island (L. Cret.) Gas (Shut-in)	3	Strat.	Water Drive	State-wide, except two wells by (Order 28-65.)	
Swift (U. Jur.) Gas	5	Strat.	Water Drive		
(Shut-in)	1				
FAIRVIEW					
Winnipegosis (Dev.) Oil & Gas	3	Structural	Water Drive	160-acre spacing unit. Well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 48-65, 1-67, 43-67, 44-67.) Gas to Fairview plant.	Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70.) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71.)
Red River (Ord.) Oil & Gas	8	Structural	Water Drive		
(Shut-in)	1				
Mission Canyon (Miss.) (Shut-in)	1	Structural	Water Drive		
FERTILE PRAIRIE					
Red River (Ord.)	2	Structural-Strat.	Water Drive	80-acre spacing units consisting of north-south rectangular units. Well location in NW¼ and SE¼ of quarter section with 75' topographic tolerance. (Orders 3-56, 7-62.)	None

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
FLAT COULEE						
Bow Island (L. Cret.) Gas		3	Structural	Depletion	330′ from boundary of legal subdivision and 1320′ from other wells in same reservoir. (Order 16-55.)	Waterflood unit and redelineation approved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71.)
	(Shut-in)	1	Strat.			
Dakota (L. Cret.) Gas		2	Strat.	Depletion	State-wide, exception. (Order 11-66.)	
Swift (Jur.) Gas	(Shut-in)	1	Strat.	Depletion	State-wide gas spacing.	
Swift (Jur.) Oil		20	Strat.	Depletion	40-acre spacing units. Well in center of spacing unit with 150′ topographic tolerance. (Orders 16-62, 19-63.)	
	(Shut-in)	1	Strat.	Depletion		
Sawtooth (Jur.) Gas		1	Strat.	Depletion	State-wide.	
	(Shut-in)	1				
FLAT LAKE						
Nesson (Miss.)	(Shut-in)	1	Strat.	Partial Water Drive	160-acre spacing units; well location in center of NE¼ of quarter section with 200′ topographic tolerance. Wells no closer than 961′ to North Dakota state line and no closer than 1600′ to Canadian line. (Orders 10-65 amended, 43-65, 23-66, 33-66.)	Excess salt water disposed into Muddy, Dakota, or Lakota formations. (Orders 39-64, 39-66.) Unit operation for eastern part of field. (Order 7-71.) Unit operation for western part of field. (Order 32-74.)
Ratcliffe (Miss.)		49	Structural-Strat.	Partial Water Drive		
	(Shut-in)	4				
FLAT LAKE, SOUTH						
Ratcliffe (Miss.)		4	Structural-Strat.	Partial Water Drive	Same as Flat Lake spacing. (Order 2-67.)	Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19-67.)
FOUR MILE CREEK						
Red River (Ord.)		1	Structural	Depletion	320-acre spacing units. (Order 43-75.)	None
FOUR MILE CREEK, WEST						
Red River (Ord.)		2	Structural	Depletion	State-wide.	None
FOX CREEK						
Stony Mtn. (Ord.)		1	Structural	Depletion	State-wide.	None
FOX CREEK, NORTH						
Mission Canyon (Miss.)		1	Structural	Depletion	State-wide.	None
FRANNIE (Mont. Portion)						
Tensleep (Penn.)		1	Structural	Comb. Water Drive and Gravity Drainage	10-acre spacing units; well location in center of each unit with 100′ topographic tolerance. (Order 35-63.)	Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids. (Order 21-70.)
FRED & GEORGE CREEK						
Sunburst (L. Cret.) Oil & Gas		25	Strat.	Depletion	Oil: 40-acre spacing units; well location in center of unit with 250′ topographic tolerance. (Orders 29-63, 1-65.)	Sunburst waterflood initiated July, 1970, using water from Madison, (Order 13-70) and Eagle water. (Order 27-71.)
	(Shut-in)	5				
Swift (U. Jur.) Oil & Gas		9	Strat.	Depletion	State-wide. Order 29-63 amended by (Order 48-77.)	
	(Shut-in)	2				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
FRESNO						
Eagle-Virgelle (U. Cret.)		5	Structural-Strat.	Volumetric	640-acre spacing units, well located no closer than 990' from unit boundary. One well may be drilled within each spacing unit for each production horizon within the spacing unit. (Order 14-76.)	None
FROID, SOUTH						
Red River (Ord.)		1	Structural-Strat.	Depletion	State-wide.	None
FT. GILBERT						
Red River (Ord.)		3	Structural-Strat.	Depletion	State-wide.	None
GAGE						
Amsden (Penn.)		1	Structural	Water Drive	State-wide.	None
GAS CITY						
Red River (Ord.)		10	Structural	Depletion-Water Drive	80-acre spacing units consisting of E½ and W½ of quarter sections; well location in NW¼ and SE¼ of quarter section; 150' topographic tolerance. Spacing waived and state-wide Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are waived in unitized portion of field. (Order 29-62.)	Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64.) Waterflood using produced water and Madison water. (Order 16-69.)
	(Shut-in)	9				
GIRARD						
Red River (Ord.)		1	Structural-Strat.	Depletion-Water Drive	State-wide.	None
Interlake (Sil.)	(Shut-in)	1				
GLENDIVE						
Red River (Ord.) Oil & Gas		14	Structural-Strat.	Depletion-Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE¼ and SW¼ of each quarter section with 75' topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66.)	Excess produced water disposed into Swift, Dakota and Judith River formations. (Orders 16-56, 16-63, 40-A-70, 7-A-72.)
	(Shut-in)	4				
GOLD BUTTE						
Bow Island (L. Cret.)		2	Structural	Water Drive?	640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59.) Amended field boundary. (Order 43-77.)	None
GOLDEN DOME						
Eagle (U. Cret.) Gas	(Shut-in)	2	Structural-Strat.	Water Drive	160-acre spacing; 660' from spacing unit boundary. (Order 15-72.)	None
Greybull (L. Cret.) Oil		2		Depletion		
GOOSE LAKE						
Ratcliffe (Miss.) Oil & Gas		19	Structural-Strat.	Partial Water Drive	Unitized. (Order 17-72.) Reduced field area; (Order 29-77.) Unit production curtailment; (Order 45-77.)	Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68.)
	(Shut-in)	4				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
GRABEN COULEE						
Sunburst (L. Cret.)		1	Structural-Strat.	Depletion	40-acre spacing units; well location no closer than 330' from legal subdivision.	Excess produced water disposed into Cut Bank formation. (Order 45-A-75.)
	(Shut-in)	2				
Cut Bank (L. Cret.)		33	Structural-Strat.	Depletion	(Cut Bank and Madison) Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease. 75' topographic tolerance. (Order 73-62.)	
	(Shut-in)	7				
Cut Bank-Madison (Dual)		3	Structural-Strat.	Depletion		
GRANDVIEW						
Bow Island (L. Cret.) Gas (2 Zones)		8	Structural	Unknown	320-acre spacing units aligned in a north-south direction; well locations no closer than 660' to a spacing unit boundary. (Order 49-67.) Dual completion with Bow Island.	None
Madison (Miss.) Gas	(Shut-in)	1	Structural	Unknown		
GRANDVIEW, EAST						
Swift (Jur.)		1	Structural	Water Drive	State-wide.	None
GUMBO RIDGE						
Tyler (L. Penn.)		6	Structural-Strat.	Unknown	State-wide.	None
GYPSY BASIN						
Sunburst (L. Cret.) Oil & Gas		6	Structural-Strat.	Comb. Water Drive and Completion	330' from lease lines and 660' between wells in same formation. Only two wells per quarter-quarter section. (Order 7-66.)	Order 6-64 permits injection of excessive gas (produced with oil) into the Sunburst gas cap.
Swift (U. Jur.)	(Shut-in)	2	Structural-Strat.	Comb. Water Drive and Depletion	Same as Sunburst.	
Sawtooth-Madison (Jur. & Miss.) Oil & Gas	(Shut-in)	2	Structural-Strat.	Comb. Water Drive and Completion	(Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330' from lease line. (Order 7-66.) (Sawtooth-Madison) Gas: 160-acre spacing units; well locations in center of any quarter-quarter section in each 160-acre unit, 2340' between gas wells. 150' topographic tolerance. (Order 13-59.)	None
HARDIN						
Frontier (U. Cret.) Gas		17	Strat.	Volumetric	State-wide.	Water disposal into Red River. (Order 20-A-70.)
	(Shut-in)	31				
HAVRE						
Eagle (U. Cret.)		1	Structural-Strat.	Water Drive Depletion	State-wide. Single well used in town of Havre.	
HAY CREEK						
Mission Canyon (Miss.)		1	Structural	Depletion	State-wide.	None
Red River (Ord.)		2	Structural	Volumetric Water Drive	320-acre spacing, any two adjacent quarter sections, direction to be determined by operator. Location no closer than 660' from unit boundary. (Orders 15-69, 27-73.) Gas to Brorson plant.	

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
HAYSTACK BUTTE						
Eagle-Virg. (U. Cret.) Bow Island (L. Cret.) Kootenai (L. Cret.)		8	Structural-Strat.	Volumetric	640-acre spacing units; one well per each producing horizon above Kootenai. Location no closer than 990' from spacing unit boundary. (Order 85-76.) Amended field boundary. (Order 37-77.)	None
HIAWATHA						
Tyler (L. Penn.) (2 sands)		4	Structural-Strat.	Depletion	State-wide.	None
	(Shut-in)	1				
HIBBARD						
Amsden (Penn.)		1	Unknown	Water Drive	State-wide.	None
HIGH FIVE						
Tyler (Penn.)		16	Structural-Strat.	Water Drive	State-wide.	Water disposed into Dakota and Stensvad formations (Orders 33-A-77, 70-A-78.)
HIGHVIEW						
Madison (Miss.) Oil & Gas		1	Structural	Water Drive	160-acre spacing units, located no closer than 660' from spacing unit boundary. 150' topographic tolerance. (Order 84-76.)	None
	(Shut-in)	3				
HORSE CREEK						
Swift (U. Jur.)		1	Structural	Water Drive	State-wide.	None
HOWARD COULEE						
Tyler (L. Penn.)		3	Structural-Strat.	Unknown	State-wide.	Produced water injected into the Piper formation. (Order 69-A-78.)
Piper Line (M. Jur.)		2	Strat.?	Unknown		
IVANHOE						
Morrison (U. Jur.)		1	Structural-Strat.	Depletion	40-acre spacing unit for production from any one common formation; well location in center of unit with 200' topographic tolerance. (Order 7-60 and 9-56.)	Waterflood of Tyler B & C sands discontinued.
	(Shut-in)	1				
Amsden (L. Penn.)		5	Structural-Strat.	Water Drive		Water disposal into Tyler "A". (Order 8-A-78.)
Tyler (L. Penn.)		4	Structural-Strat.	Depletion		
JIM COULEE						
Tyler (L. Penn.)		15	Structural	Depletion	Unitized (Order 18-72.) No well closer than 330' from unit boundary.	Waterflood; produced and Third Cat Creek water.
	(Shut-in)	3	Strat.	Water Drive		
KEG COULEE						
Tyler (Penn.) Oil & Gas		18	Strat.	Depletion	40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64.) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62.) (40-acre spacing; W½ E½ and W½ Sec. 35-11N-30E; NW¼ Sec. 2-10N-30E). (Order 23-72.) Topographic tolerance varies from 100' to 250'. (Orders 11-60, 4-64, 23-64.) Buffer zone waived. (Order 16-65.) Field Reduction (Order 2-76.) (Orders 11-60, 4-64, and 2-76) Amended by: (Orders 58-76.)	Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69.) Madison water injected.
	(Shut-in)	3				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
KEG COULEE, NORTH					
Tyler (Penn.)	5	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 150' topographic tolerance. (Order 46-64.) Buffer zone waived. (Order 16-65.) Field Area amended (Orders 59-76.)	None
(Shut-in)	1				
KEITH (see East Keith)					
KELLEY					
Tyler (Penn.)	3	Strat.	Depletion	State-wide, 250' topographic tolerance. (Order 15-67.)	Waterflood using Third Cat Creek water. (Order 8-69, 51-76.)
KEVIN-SUNBURST					
Sunburst (L. Cret.) Oil & Gas	51	Strat.	Depletion	9 wells per 40-acre tract; only 3 wells on any side of tract set back at least 220' from line. Field delineated by (Orders 8-54, 28-55.)	There are four waterfloods in operation, using Madison water. (Orders 9-64, 17-64, 30-64, 36-65, 29-71.) Sunburst water disposed into Madison (Order 50-76.)
(Shut-in)	46				
Swift (U. Jur.)	1	Structure			
Sun River (Miss.) Oil & Gas	482	Structure-Strat.	Depletion		
Gas only	49				
(Shut-in)	?				
Nisku (Dev.) Gas	1			640-acre spacing units; location no closer than 990' from spacing unit boundary. (Order 83-76.)	None
KEVIN, SOUTHWEST					
Bow Island (L. Cret.) Gas	1	Structure-Strat.	Depletion	320-acre one-half section spacing units lying N-S or E-W at operator's option. Location to be no closer than 660' from unit boundary for Sunburst-Swift formations and all formations above the top of the Kootenai. (Orders 26-78, 47-78.)	None
Sunburst (L. Cret.) Gas	1				
Swift (U. Jur.) Gas	1				
Bow Island-Swift	2				
Bow Island-Sunburst	2				
KICKING HORSE					
Bow Island (L. Cret.)	8	Structural	Depletion	320-acre spacing with location permitted no closer than 660' from unit boundary and 990' from field boundary. (Order 17-74.) One 640-acre unit. (Order 17-74.)	None
Sawtooth (Jur.) Gas	1				
Sunburst (L. Cret.)	1	Strat.	Depletion		
KINYON COULEE					
Bow Island (L. Cret.)	4	Structural-Strat.	Volumetric	State-wide.	None
LAIRD CREEK					
Swift (U. Jur.) Oil & Gas	10	Strat.	Depletion	State-wide.	Unitized and waterflood authorized in Swift for oil production. (Order 25-74.) Commenced 2-25-77.
LAKE BASIN					
Telegraph Creek (U. Cret.) Gas	9	Structural-Strat.	Volumetric	160-acre spacing units to base of Virgelle; wells no closer than 660' from unit boundary and 990' from field boundary. Commingling permitted after administrative approval. (Order 9-74.) Gas from Telegraph Creek pooled. (Order 29-75.)	None
Virgelle (U. Cret.) Gas (Shut-in)	2				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LAKE BASIN, NORTH						
Eagle, Frontier (U. Cret.) Gas		2	Structural	Unknown	640-acre spacing units consisting of one section. Locations 990' from section line. (Order 3-74.)	None
Claggett	(Shut-in)	5				
Eagle-Virg. (U. Cret.) Gas		1	Structural	Unknown	160-acre spacing units located no closer than 660' from quarter section lines within restricted Sections. (Order 63-76.)	None
	(Shut-in)	1				
LANDSLIDE BUTTE						
Sun River (Miss.)		1	Unknown	Water Drive	State-wide.	None
	(Shut-in)	2				
LAREDO						
Eagle (U. Cret.)	(Shut-in)	21	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 990' from unit boundary. (Order 8-74.)	None
Judith River (U. Cret.)	(Shut-in)	1				
LAUREL						
Dakota (L. Cret.)	(Shut-in)	2			10-acre spacing unit. Well location to be in center of spacing unit with 75' topographic tolerance. (Order 15-62.)	
LEARY						
Muddy (L. Cret.)		5	Structural-Strat.	Depletion	80-acre spacing with locations in NE¼ and SW¼ of each quarter section, 200' topographic tolerance. (Order 12-69, 19-70.) Reduced Field Area (Order 68-76.)	None
LEDGER						
Bow Island (L. Cret.) Gas		11	Structural	Volumetric	640-acre spacing: one well per section per Sand to be located no closer than 990' from section line. Permissible to commingle two or more Sands, subject to administrative approval by the Petroleum Engineer. (Order 53-77.)	
	(Shut-in)	8				
LEROY						
Judith River-Eagle		22	Unknown	Depletion	320-acre spacing with unit consisting of one-half section lying N-S or E-W at operator's option after administrative approval. Well no closer than 660' from unit boundary and 990' from field boundary. (Order 19-75.)	None
Virgelle (U. Cret.) Gas	(Shut-in)	8	Unknown	Depletion		
LISCOM CREEK						
Shannon (U. Cret.) Gas		7	Structural-Strat.	Depletion	Spacing, one well per 640 acres, with location no closer than 990' from section boundary. (Order 20-72.)	None
	(Shut-in)	1				
LITTLE BEAVER (Mont. Portion)						
Red River (Ord.)		23	Structural	Comb. Depletion and Water Drive	Spacing waived and General Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 41-62.)	Waterflood of the Red River was commenced in August, 1967. (Order 3-66.) Minnelusa water.
	(Shut-in)	1				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
LITTLE BEAVER, EAST						
(Mont. Portion)		11			Same as for Little Beaver. (Order 42-62.)	Waterflood of the Red River was commenced in April, 1965. (Order 33-64.)
Red River (Ord.)	(Shut-in)	3	Structural	Comb. Depletion and Water Drive		
LITTLE ROCK						
Blackleaf (L. Cret.) Gas	(Shut-in)	1	Structural Strat.	Depletion	320-acre north half and south half spacing units. Well location no closer than 990′ from west line of Section 14 and 660′ from the remaining unit boundary lines. (Order 40-78.)	None
Bow Island (L. Cret.)						
LITTLE WALL CREEK						
Tyler (Penn.)		17	Strat.	Depletion Water Drive	State-wide.	Produced water injected into Tyler formation (Order 54-A-77), (Order 63-A-78.)
	(Shut-in)	2				
LODGE GRASS						
Tensleep (Penn.)		1	Structural-Strat.	Water Drive	160-acre spacing units; well locations vary according to areas; 250′ topographic tolerance. (Orders 26-64, 26-65.)	None
LOHMAN						
Eagle (U. Cret.)		1	Unknown	Depletion	640-acre spacing; one well per section to be located no closer than 990′ from section line. (Order 23-78.)	None
	(Shut-in)	4				
LONE BUTTE						
Red River (Ord.)		2	Structural	Unknown	320-acre spacing units with well location at least 660′ from unit boundary. Not delineated.	None
LONETREE CREEK						
Red River (Ord.)		7	Structural	Depletion	320-acre spacing, wells 660′ from spacing boundary, 2000′ between wells. (Order 29-72.)	None
	(Shut-in)	1				
LONG CREEK						
Madison (Miss.) Charles		1	Structural	Water Drive	State-wide spacing.	None
LONG CREEK, WEST						
Nisku (Dev.)		2	Structural	Water Drive	80-acre spacing units comprised to two contiguous quarter quarter sections which may lie in either one or two governmental sections aligned either North-South, East-West with location to be no closer than 330 feet from unit boundary nor less than 1000 feet from any other producing well. (Order 27-77.)	None
LOOKOUT BUTTE						
(Includes Coral Creek Unit)						
Madison (Miss.)		3	Structural	Water Drive	State-wide spacing.	Water disposal into Madison. (Order 68-62.)
	(Shut-in)	6				
Interlake, Red River (Sil.-Ord.)		27	Structural	Comb. Depletion and Water Drive	160-acre spacing; well location in center of SE¼ of each quarter section with 150′ topographic tolerance. (Order 21-62.) Coral Creek Unit not subject to spacing rules. Redelineated per (Order 7-63.)	Waterflood of Silurian-Orodvician approved in 1966. (Order 35-66.) Water from Minnelusa.
	(Shut-in)	5				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
MARIAS RIVER						
Bow Island (L. Cret.)		9	Structural	Depletion	One well per section per horizon above the top of the Kootenai. Location to be no closer than 990′ from section line. (Order 18-78.)	None
MASON LAKE						
Lakota (L. Cret.)		5	Structural	Water Drive	80-acre spacing units consisting of ½ of a quarter section lying in either E-W or N-S direction; well location in center of the NE and SW quarter-quarter sections of each quarter section with 75′ topographic tolerance. (Order 35-78.) Amending (Order 35-78) for certain lots designated as spacing units. (Order 66-78.)	None
MASON LAKE						
North Amsden (Penn.)		1	Structural	Water Drive	State-wide.	None
McCABE						
Ratcliffe (Miss.)		1	Structural-Strat.	Depletion	320-acre spacing, any two adjacent quarter sections to be determined by operator. No less than 1650′ between wells producing from same horizon. (Order 38-78.)	None
MELSTONE						
Tyler (Penn.)		9	Structural-Strat.	Depletion	State-wide.	None.
	(Shut-in)	3				
MIDDLE BUTTE						
Bow Island (Cret.)		1	Structural	Volumetric	Orders (3-60, 21-75) Amended to delineated field extension and 320-acre spacing units consisting of the E½ & W½ of each section; well location no closer than 990′ from the section line and 660′ from the interior boundary. (Order 47-77.)	None
	(Shut-in)	2				
MINERAL BENCH						
Duperow (Dev.)		1	Structural	Water Drive	State-wide.	Water disposal into Dakota-Lakota per (Order 18-65.)
MINERS COULEE						
Sunburst (L. Cret.) Oil		2	Strat.	Depletion	Oil: 40-acre units consisting of quarter-quarter sections; well location no closer than 330′ from lease or property line and 660′ from any other well. (Order 9-66.) Order 9-66 amended to comply with Order 5-74.	None
	(Shut-in)	4				
Swift (U. Jur.) Oil		1	Strat.	Depletion		
			Strat.?	Water Drive		
Sunburst-Swift Gas		1			Gas: 160-acre spacing with wells 990′ from unit boundary. (Order 5-74.)	
Sawtooth (M. Jur.)		1	Strat.	Depletion		
Bow Island (L. Cret.)	(Shut-in)	8			Sawtooth gas spacing unit. (Order 43-76.) Field redelineation (Order 44-77.)	

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
MONARCH						
Mission Canyon (Miss.)		2	Structural-Strat.	Water Drive	80-acre spacing units consisting of east and west half of quarter section. Well location in SW¼ and NE¼ of quarter section. Location within 660' square at center of quarter section. (Order 18-61.)	Produced water is disposed into the salt water disposal system for the Pennel Field.
Interlake, Red River (Sil.-Ord.)		13	Structural-Strat.		160-acre spacing units consisting of a quarter section; well location in center of SW¼ of each quarter section with 175' topographic tolerance. (Orders 12-59, 4-63.)	Waterflood initiated 12-1-73. (Order 23-73.)
MON DAK WEST						
Madison (Miss.)		Total–9	Structural	Water Drive	320-acre spacing units for Silurian and Ordovician pools. Units to consist of either (N½, S½, E½ or W½) well location to be no closer than 660' to unit boundary or closer than 1650' to any well drilling or producing from same pool. (Order 42-77.) 320-acre spacing units for Madison and Devonian formations. Units to consist of either (N½, S½, E½ or W½) well location to be no closer than 660' from a quarter section line or section line and no closer than 1650' to any well drilling or producing from same pool. (Orders 23-77, 33-78.)	Produced water injected into Dakota-Lakota. (Order 49-A-78.)
Dawson Bay (Dev.)						
Winnipegosis (Dev.)			Structural	Comb. Depletion and Water Drive		
Interlake (Sil.)						
Stony Mtn. (Ord.)						
Red River (Ord.)						
MOSBY						
(See Cat Creek)		3	Structural-Strat.	Water Drive	Listed as part of Cat Creek.	Waterflood, 2nd Cat Creek sand. (Order 8-68.) Water flood in Amsden. (Order 11-71.)
	(Shut-in)	4				
MOSSER						
Greybull (L. Cret.)		10	Structural	Water Drive	Spacing waived. Future development requires administrative approval of the Commission. (Order 27-62.)	None
	(Shut-in)	3				
MT. LILLY						
Madison (Miss.) Gas		2	Structural-Strat.	Water Drive	640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance. (Order 37-63.)	None
Sunburst (L. Cret.) Gas		1		Depletion		
MUD CREEK						
Amsden (L. Penn.)	(Shut-in)	2	Structural	Water Drive	640-acre spacing unit. Well location anywhere in 160-acre tract in center of each 640-acre well spacing unit. (Order 9-63.)	None
NOHLY						
Red River (Ord.)		2	Structural	Volumetric Water Drive	State-wide.	None
NORTH FORK						
Red River (Ord.)		1	Structural	Water Drive	State-wide.	None
Mission Canyon (Miss.)		1	Structural	Water Drive		

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
NORTH GILDFORD						
Sawtooth (M. Jur.)	(Shut-in)	1	Structural	Unknown	320-acre specified spacing units. One well per unit 660' from boundary, 2640' between wells. (Order 9-58.) Boundary reduction. (Order 38-76.)	None
NORTH LAKE BASIN						
(See Lake Basin, North)						
NORTH WILLOW CREEK						
(See Willow Creek, North)						
OTIS CREEK						
Red River (Ord.)		1	Structural	Depletion	State-wide.	None
OTIS CREEK, SOUTH						
Red River (Ord.)		2	Structural	Depletion	320-acre spacing units; well to be located no closer than 660' to unit boundary. (Order 39-72.) Extended field boundary. (Order 56-76, 67-76.)	None
OUTLOOK						
Duperow (Dev.)		1	Structural-Strat.	Water Drive	State-wide.	Produced water is disposed into Dakota and Siluro-Devonian formations. (Orders 16-59, 17-65, 36-66, 9-A-77.) Produced water disposed into Madison formation. (Order 59-A-78.)
	(Shut-in)	1				
Winnipegosis (Dev.)		3	Structural-Strat.	Water Drive	State-wide.	
Silurian-Devonian		3	Structural-Strat.	Water Drive	160-acre spacing units; well location in center of either SW¼ or NE¼ of each quarter section; 175' topographic tolerance. (Order 19-59A.)	
	(Shut-in)	1				
OUTLOOK, SOUTH						
Winnipegosis		1	Structural	Water Drive	160-acre spacing; permitted wells in either SW¼ or NE¼ of quarter section; 175' topographic tolerance. (Order 19-59A.) Commingling permitted. (Order 45-64.)	Produced water disposed into Muddy and Dakota formations.
OUTLOOK WEST						
Winnipegosis (Dev.)		2	Structural	Water Drive	160-acre spacing units consisting of quarter sections; permitted wells in either SW¼ or NE¼ with a tolerance of 175'. (Order 7-67.)	Produced water disposed into Dakota formation. (Order 42-66.)
OXBOW						
Red River (Ord.)		1	Structural-Strat.	Water Drive	320-acre spacing consisting of two contiguous governmental quarter sections which may be in one or two governmental sections lying E-W or N-S at operator's option. Location to be no closer than 660' to the unit boundary or closer than 1650' to a well producing from same pool. (Order 7-78.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
PENNEL					
Mission Canyon (Miss.)	6	Structural	Depletion-Water Drive	80-acre spacing units consisting of east and west half of quarter section; wells located in center of SE¼ and NW¼ of quarter sections with 150′ topographic tolerance. (Order 15-61.)	Produced water is being injected into Dakota, Siluro-Ordovician and Madison formations. (Orders 16-60, 46-62, 68-62, 36-63, 13-64.) Waterflood for Siluro-Ordovician approved Nov. 1968. (Order 24-68.)
Siluro-Ordovician Oil & Gas	108	Structural	Depletion-Water Drive	80-acre spacing units on west side and 160-acre spacing units on east side of pool. Wells to be located in SE¼ and NW¼ of each quarter section (80 acres) and in SE¼ of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63.) Commingling approved. (Order 59-62.)	
PETE CREEK					
Sunburst (L. Cret.) Oil	1	Strat.	Depletion	State-wide.	None
PHANTOM					
Sunburst (Cret.) Gas	1	Structural	Depletion	*Gas: wells permitted anywhere within the unit but no closer than 990′ to the unit boundary.	None
Sunburst (L. Cret.) Oil	4	Strat.	Depletion		
Swift (U. Jur.) Gas	2	Strat.	Depletion	*Oil: projected depths greater than 6000′ to be located no closer than 660′ to the unit boundary. Projected depths less than 6000′ to be located no closer than 330′ to the unit boundary. (Order 48-77.)	
PHANTOM, WEST					
Sunburst (L. Cret.) Gas	1	Structural	Depletion	One well per spacing unit to be located no closer than 660′ to the exterior boundaries of three certain spacing units. (Order 65-78.)	None
PINE					
Mission Canyon (Miss.) Oil & Gas	2	Structural	Water Drive	Spacing and General Rules 213, 218 and 219 are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW¼ and SE¼ of quarter section; 150′ topographic tolerance. (Order 37-62.) Gas through extraction plant.	A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67.) Produced water injected into Mission Canyon. (Order 10-A-74.)
Siluro-Orodovician Oil & Gas	102	Structural	Depletion-Water Drive		
PINE, EAST					
Red River (Ord.)	1	Structural	Depletion Water Drive	State-wide.	None
PLEVNA					
Judith River (U. Cret.) Gas	19	Structural	Water Drive	1200′ from legal subdivision line; 2400′ from other wells on same lease or unit; 75′ topographic tolerance. (Orders 34-54, 4-57.)	None
(Shut-in)	1				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
POLICE COULEE					
Bow Island (L. Cret.)		Structural	Depletion	320-acre spacing units; location no closer than 990' from section line and 660' from half section lines. Spacing units to consist of north half or south half, east half or west half at discretion of operator. (Order 53-76.) Extended Field boundaries. (Order 24-77.)	None
(Shut-in)	3				
PONDERA					
Sun River (Miss.) Oil & Gas	274	Structural-Strat.	Depletion-Water Drive	Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance. Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance. (Order 9-54.) Gas: 1320' from legal subdivision; 3700' from other wells on same lease or unit; 75' topographic tolerance. (Orders 9-54.) General Rules 207, 211, 219, 221, 223, and 224 do not apply.	Produced water injected into lower Madison. (Orders 11-56, 15-56, 4-65, 4-66, 20-A-71), (57-A-78), (58-A-78), (62-A-78), (71-A-78.)
(Shut-in)	45				
PONDERA COULEE					
Sun River (Miss.) (Shut-in)	3	Structural	Water Drive	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance. (Order 5-62.)	None
POPLAR, EAST					
Madison (Miss.) (Charles & Mission Canyon fms.)	60	Structural	Water Drive	State-wide spacing; field delineated by (Order 7-55.) Re-delineation of field (Order 25-76.)	Unitized in 1955. (Order 7-55.) Excess produced water has been injected into the Dakota Judith River, and Mission Canyon River, and Mission Canyon formations. (Orders No. 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67, 10-A-73.)
Heath (Tyler) (Penn.)	3	Structural-Strat.	Water Drive		
Nisku (Dev.)	1	Structural	Water Drive		
POPLAR NORTHWEST					
Charles (Miss.) ("B" & "C" or McGowan Zone)	16	Structural	Water Drive	80-acre spacing units for all zones in Charles formation consisting of E½ and W½ of each quarter section; permitted wells in NW¼ and SE¼ of quarter section except for certain specified spacing unit tracts. (Orders 18-55 & 26-76.) Commingling approved. (Order 26-76.)	Produced water disposed into Dakota. (Order 61-A-78.)
PRAIRIE DELL					
Bow Island (L. Cret.)	3	Structural-Strat.	Depletion	320-acre spacing units with well location no closer than 660' to spacing unit boundary. (Order 10-76.) Redelineation and amendment to (Order 10-76) by (Order 28-78.)	None
Sunburst (L. Cret.)	1				
Bow Island-Sunburst, Dual	15				
Bow Island, Swift, Dual	2				
PRAIRIE DELL,WEST					
Swift (U. Cret.) Gas	1	Structural-Strat.	Depletion	640-acre spacing unit; well to be no closer than 990' to the spacing unit boundary. (Order 16-78) Amending (Order 16-78) to include all horizons above the Rierdon formation. (Order 54-78.) Field enlargement. (Order 55-78.)	None

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
PRAIRIE ELK					
Charles "C" (Miss.)	1	Unknown	Water Drive	State-wide.	None
(Shut-in)	1				
PRICHARD CREEK					
Sunburst (L. Cret.) Oil & Gas	3	Strat.	Depletion	Well locations subject to administrative approval.	None. Unitized as to Sunburst for water injection. (Order 7-73.)
(Shut-in)	3				
Swift (U. Jur.) Oil	1	Strat.	Depletion		
PUMPKIN CREEK					
Shannon (U. Cret.) Gas	3	Strat.	Depletion	State-wide. Delineated. (Order 10-71.)	None
(Shut-in)	5	Strat.			
PUTNAM					
Interlake (Sil.)	1	Structural	Volumetric Water Drive	State-wide.	None. Gas to McCulloch Gas Processing Corp. Brorson Plant.
Red River (Ord.)	1	Structural	Volumetric Water Drive		
PUTNAM, EAST					
Mission Canyon (Miss.)	1	Structural	Water Drive	State-wide.	None
Red River (Ord.)	6	Structural	Volumetric Water Drive		
RABBIT HILLS					
Sawtooth (Jur.)	2	Structural	Volumetric	160-acre spacing unit. Well location 660' from spacing unit boundary. (Orders 17-73, 34-74, 33-76.) Re-delineation (Order 47-76.)	Produced water disposed into Eagle formation. (Order 49-A-75.)
(Shut-in)	1	Strat.	Water Drive		
RAGGED POINT					
Tyler (Penn.)	23	Strat.	Depletion	40-acre spacing units; 75' topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to Unit Boundary. (Order 35-65.)	A waterflood project of the Tyler "A" sand was commenced in February, 1966, using Third Cat Creek water. (Order 35-65.)
(Shut-in)	1				
Kibbey (Miss.) Plugged	0	Structural	Water Drive	State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per (Order 11-65.)	
RAPELJE					
Claggett, Eagle, Judith River,	15	Structural-	Water Drive	160-acre spacing. Wells no closer than 990' to unit boundary. Commingling after administrative approval. (Order 29-73.)	None
Virgelle (U. Cret.)	1	Strat.			
RATTLER BUTTE					
Tyler (Penn.)	2	Strat.	Depletion	State-wide.	None
RATTLESNAKE COULEE					
Sunburst (L. Cret.) Oil & Gas	2	Strat.	Depletion	State-wide.	None
Bow Island (L. Cret.) Gas (Shut-in)	1				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
RAYMOND					
Duperow (Dev.)	1	Structural-Strat.	Depletion Water Drive	320-acre spacing units. Wells 660′ from spacing unit boundary. (Order 38-72.) Gas Storage. (Order 50-78.)	Produced water injected into Dakota formation. (Order 38-A-74.)
Nisku-Winnipegosis (Dev.) Dual	1				
Winnipegosis (Dev.)	2				
Red River (Ord.)	1				
RAYMOND, NORTHEAST					
Winnipegosis (Dev.) (Dual)	1	Structural-Strat.	Depletion Water Drive	160-acre spacing units. Wells 660′ from spacing unit boundary. (Order 12-74.)	None
Red River (Ord.)					
REAGAN					
Sun River (Miss.) Oil	49	Structural	Gas Cap-Water Drive	State-wide. (Order 17-54.)	A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60.) Waterflood. (Order 27-72.)
(Shut-in)	14				
Gas	2				
REAGAN, WEST					
Blackleaf (L. Cret.) Gas	1	Strat.	Depletion	State-wide. Injected into Reagan field as secondary recovery agent.	None
Bow Island (L. Cret.) Oil (Shut-in)	1	Structural-Strat.	Volumetric		
RED CREEK					
Cut Bank (L. Cret.) Oil & Gas	6	Strat.	Depletion	40-acre spacing units; wells in center of spacing unit with 75′ topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70.)	Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64.) A waterflood project in the Cut Bank sand was initiated in June, 1965, using Madison water.
(Shut-in)	2				
Sun River (Miss.) Oil & Gas	13	Structural	Water Drive		
(Shut-in)	8				
RED FOX					
Nisku (Dev.)	1	Structural	Water Drive	Field consists of one 160-acre spacing unit which straddles the section line. (Order 20-67.)	None
REDSTONE					
Winnipegosis (Dev.)	1	Unknown	Water Drive	One well per 160-acre unit, but no closer than 660′ from unit boundary.	None
REPEAT					
Red River (Ord.)	1	Unknown	Water Drive	State-wide.	None
RESERVE					
Winnipegosis (Dev.)	1	Structural-Strat.	Water Drive	160-acre spacing units; permitted well within 1320′ square in center of quarter section. Commingling of Red River and Interlake production permitted on individual well basis. (Orders 34-66, 27-67.)	Excess water injected into Dakota sand. (Order 23-A-67.)
Red River (Ord.)	3	Structural-Strat.	Water Drive		
RICHEY					
Charles (Miss.)	3	Structural	Water Drive	State-wide.	Original 80-acre spacing revoked. (Order 11-73.)

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
RICHEY, SOUTHWEST						
Interlake, Dawson Bay		4	Structural	Depletion	160-acre spacing units; wells no closer than 900' from boundary or spacing unit. (Order 25-62.)	A waterflood project in the Interlake and Dawson Bay was started in 1965. (Order 34-65.)
(Sil.) (Dev.)	(Shut-in)	2				
RIPRAP COULEE						
Ratcliffe (Miss.)		2	Structural-Strat.	Depletion	State-wide.	None
ROCKY BOY						
Eagle-Virgelle (U. Cret.)		10	Structural-Strat.	Water Drive	State-wide.	None
Judith River (U. Cret.)		3				
ROCKY POINT						
Red River (Ord.)		1	Structural	Volumetric Water Drive	State-wide.	None
ROSCOE						
Lakota (L. Cret.)	(Shut-in)	1	Structural	Water Drive	State-wide.	None
ROSEBUD						
Tyler (L. Penn.)		4	Structural-Strat.	Unknown	State-wide.	None
ROUGH CREEK						
Muddy (L. Cret.)	(Shut-in)	1	Structural-Strat.	Depletion	State-wide. Formerly called Duncan Creek.	None.
RUDYARD						
Sawtooth (M. Jur.) Gas	(Shut-in)	5	Structural	Volumetric	640-acre spacing units consisting of one section; well location in center of NW¼ of section with 75' topographic tolerance. (Order 2-58.) Field boundaries reduced. (Order 39-76.)	None
RUSH MOUNTAIN						
Winnipegosis (M. Dev.)		1	Structural	Volumetric-Water Drive	State-wide. Dual zone completion in discovery well.	Excess water injected into Dakota sand. (Order 5-A-71.)
Red River (Ord.)		1				
SAGE CREEK						
Greenhorn (Cret.) Gas	(Shut-in)	1	Strat.	Depletion	640-acre spacing, one producing well per section per formation above the Kootenai to be located no closer than 990 feet from section line. (Order 38-77.)	None
Black Leaf (L. Cret.) Gas		1				
	(Shut-in)	20				
SALT LAKE						
Bakken-Nisku (Miss.-Dev.)		3	Structural	Water Drive	State-wide.	None
SAND CREEK						
Interlake, Red River		4	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NW¼ and SE¼ of each quarter section. (Order 16-59.) Commingling of production from Interlake and Red River authorized per (Order 49-62.)	Excess produced water is injected into the Swift formation. (Order 9-61.)
(Sil.) (Ord.)	(Shut-in)	2				

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SANDWICH					
Sunburst (L. Cret.) Gas	1	Strat.	Depletion	320-acre spacing unit. Well: located no closer than 990' to spacing unit boundaries. (Order 17-77.)	None
Swift (U. Jur.) Gas (Shut-in)	1				
SAWTOOTH MOUNTAIN					
Judith River (U. Cret.)	8	Structural-Strat.	Volumetric Water Drive	640-acre spacing units, one well per section per formation, location to be not less than 990' from governmental section line. (Order 45-76.)	None
Eagle (U. Cret.)	24				
(Shut-in)	1				
SECOND CREEK					
Red River (Ord.)	1	Structural	Volumetric Water Drive	303.1-acre spacing unit; one well field. (Order 34-78.)	None
SHEEPHERDER					
Tyler (L. Penn.)	3	Structural-Strat.	Unknown	State-wide.	None
SHELBY AREA					
Sunburst (L. Cret.) Gas	33	Structural-Strat.	Depletion	State-wide. Field outline not delineated. A few small Swift sand wells commingled with Sunburst.	None
Swift (Jur.) Gas					
Bow Island (L. Cret.) Gas	5				
SHERARD					
Eagle (U. Cret.) Gas	20	Structural-Strat.	Volumetric Water Drive	640-acre spacing units; 990' from section line. (Order 1-74.) 160-acre spacing units; (Eagle) 990' from section line, 660' from quarter section line. (Order 7-77.)	None
(Shut-in)	9				
Judith River (U. Cret.) Dual	1				
SHERARD WEST					
Eagle, Virgelle (U. Cret.)	1	Structural-Strat.	Volumetric Water Drive	160-acre spacing units; location no closer than 660' to unit boundary. (Order 90-76.)	None
(Shut-in)	1				
SHOTGUN CREEK					
Gunton (Ord.)	1	Structural	Water Drive	State-wide.	None
Red River (Ord.)					
SHOTGUN CREEK, NORTH					
Gunton (Ord.)	1	Structural	Water Drive	320-acre spacing units consisting of two contiguous governmental quarter sections which may be in one or two sections with permitted well to be no closer than 600' to the unit exterior boundary and no closer than 1500' to any well producing from the same formation. IF NOT feasible to produce two zones separately, commingling permissible with prior administrative approval. (Order 49-77.)	None
Red River (Ord.)					
SIDNEY					
Mission Canyon (Miss.)	4	Structural	Water Drive	State-wide.	Excess water injected into Dakota formation. (Order 41-A-78.)

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SINGLETREE					
Red River (Ord.)	1	Structural	Volumetric	State-wide.	None
SIOUX PASS					
Interlake (Sil.) Dual	2	Structural	Volumetric	320-acre spacing units consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from unit boundary. (Interlake and Red River). 160-acre spacing unit (Mission Canyon) with well no closer than 660' from unit boundary. Commingling of Interlake and Red River production authorized. (Order 10-75.) Amended field boundary. (Order 15-77.)	Excess water injected into Dakota formation. (Order 15-A-75.)
Red River (Ord.)	5		Water Drive		
Mission Canyon (Shut-in)	1				
SIOUX PASS, EAST					
Red River (Ord.)	1	Structural-Strat.	Water Drive	State-wide.	None
SIOUX PASS, MIDDLE					
Red River (Ord.)	2	Structural	Water Drive	320-acre spacing units to consist of two contiguous governmental quarter sections at operator's option. Location to be no closer than 660' from exterior boundary of unit and no closer than 1650' from well producing from same formation. Commingling permissible with Administrative approval. (Order 55-76.)	None
SIOUX PASS, NORTH					
Interlake (Sil.) Red River (Ord.) Dual Winnipegosis (Dev.)	1	Structural	Unknown	320-acre spacing units with well location at least 660' from unit boundary. (Order 12-75.) Field enlarged. (Order 16-75.) Commingling from Interlake and Red River approved. (Order 36-76.) Refer to Order 35-75 for modification. Field Extension. (Order 12-77.)	None
Nisku (Dev.) Red River (Ord.) Dual	1		Water Drive		
Red River (Ord.)	3				
SNOOSE COULEE					
Bow Island (L. Cret.) Gas	5	Structural-Strat.	Volumetric	640-acre spacing units; location no closer than 990' from spacing unit boundary. Bow Island and Shallowen Formations. (Order 18-18-77.)	None
SNOW COULEE					
Sunburst (L. Cret.) Gas (Shut-in)	1	Strat.	Depletion	Spacing units. E½ section 33 and W½ section 34, 36N-4E designated as spacing units. (Order 78-76.)	None
SNYDER					
Tensleep (Penn.)	3	Structural	Water Drive	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance. (Order 45-62.)	None
(Shut-in)	1				
SOAP CREEK					
Tensleep, Amsden, Madison (Penn.) (Penn.) (Miss.)	23	Structural	Water Drive	One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100' topographic tolerance. (Order 26-60.)	None
(Shut-in)	1				

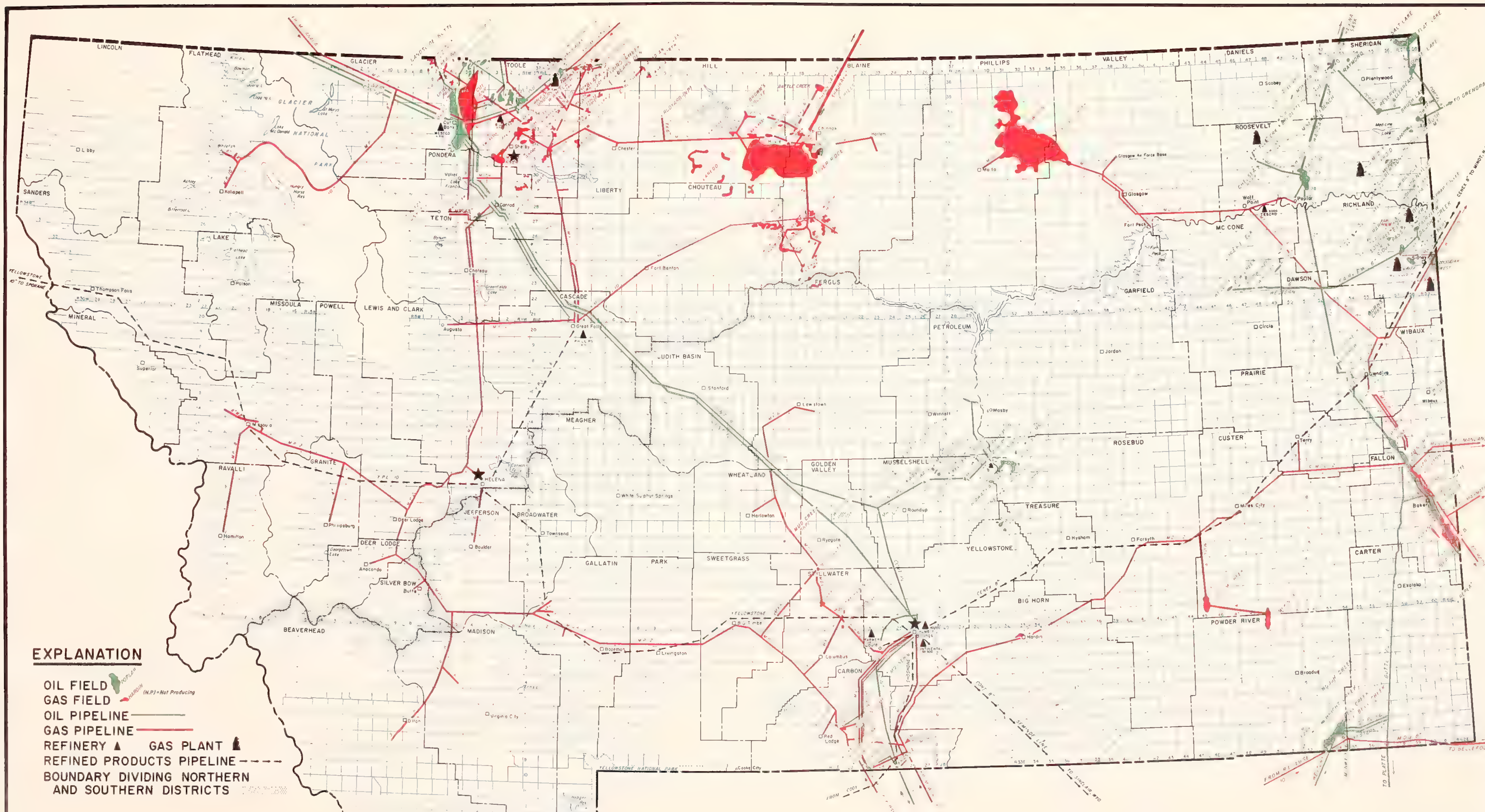
Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
SOAP CREEK, EAST						
Tensleep (Penn.)		3	Structural	Water Drive	State-wide.	None
SOUTH FORK						
Red River (Ord.)		3	Structural	Water Drive	State-wide.	None
SPRING LAKE						
Nisku (Dev.)	(Shut-in)	1	Structural	Depletion	One well per 160-acre spacing unit. Well location anywhere within 840' square in center of spacing unit. (Order 6-63.) Field redelineation. (Orders 30-76, 49-76.)	None
Red River (Ord.)		2	Structural	Depletion		
SQUAW COULEE (Now included as part of Tiger Ridge Field.) (Order 10-70.)						
STRAWBERRY CREEK						
Bow Island (I. Cret.) Gas		3	Structural-	Volumetric	State-wide.	None
Sawtooth (M. Jur.)		1	Strat.	Water Drive		
STENSVAD						
Tyler (Penn.)		3	Strat.	Depletion	40-acre spacing units; well location in center of spacing unit with 200' tolerance. (Orders 2-59, 7-60.) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' from unit boundary. (Orders 5-65, Amended.)	A waterflood operation has been in progress since 1963, using Madison water. (Orders 48-67, 9-67.) Excess produced water disposed into Madison (Order 70-A-76.)
	(Shut-in)	12				
SUMATRA						
Tyler (Penn.) Oil & Gas		101	Strat.	Depletion	40-acre spacing units; well located in center of unit with 75' tolerance. (Order 14-58.) Field re-delineated. (Order 14-75.)	Six waterflood units using Madison water. (Orders 48-67, 6-69, 19-69, 23-69, 5-75, 21-78.) Produced water disposed into Madison formation. (Order 7-A-76.)
	(Shut-in)	15				
SUNNYHILL						
Red River (Ord.) Oil & Gas		2	Structural	Volumetric Water Drive	320-acre spacing units; location to be no closer than 660' to the section or quarter section line which is the exterior boundary of the unit nor closer than 1650' to any well producing from same formation. (Order 39-78.)	None
SWANSON CREEK						
Phillips (U. Cret.) Gas		4	Strat.	Depletion	320-acre spacing units; (Order 36-75) amended to enlarge field and provide that spacing units may run N-S or E-W at operator's option with permitted wells to be no closer than 990' to section or quarter section line. (Order 11-78.) Field boundaries extended. (Order 32-78.)	None
	(Shut-in)	6				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
TIGER RIDGE						
Judith River (U. Cret.) Gas		8	Structural-	Volumetric	Field delineated; (Orders 17-67, 23-68) re-delineated and established. State-wide spacing. (Order 10-70.)	Excess produced water injected into Eagle formation. (Order 19-A-73, 46-A-75.) (Order 19-A-73) Amended by (Order 60-A-78.)
	(Shut-in)	7	Strat.	Water Drive	State-wide for field area not unitized. Two units; wells to be located closer than 990' from unit boundary (Order 11-72, 41-72) 160-acre spacing units; sections 20, 21, 22, 27, 28, 33, 34, 32N-16E (Judith River) locations to be no closer than 660' from unit boundary (Order 32-73) Enlarge and re-delineate Field (Order 13-75) 160-acre spacing units in sections 22, 23, 24, 32N-14E (Eagle & Virgelle) wells to be located no closer than 990' from section line and 660' from quarter section line (Order 37-75) 160-acre spacing units; NW¼ & NE¼ section 30, T-31N, 4-17E well to be located at least 990' from quarter section line. 75' tolerance allowed for topographic reasons (Order 51-77.) 160-acre spacing units; sections 32, 33, 31N-17E & Section 4, 30N-17E (Eagle) to be located no closer than 990' to a section line and 660' to quarter section line. (Order 52-77.) Field enlargement (Order 46-78.)	
Eagle (U. Cret.) Gas		231	Structural-	Volumetric		
	(Shut-in)	49	Strat.	Water Drive		
TIMBER CREEK						
Sunburst (L. Cret.) Gas	(Shut-in)	2	Strat.	Depletion	320-acre spacing consisting of two adjacent governmental quarter sections lying N-S or E-W at operator's option. Permitted well no closer than 660' from spacing boundary and 990' from field boundary. (Order 24-75.)	(Orders 17-67, 23-68, 10-70.)
TIMBER CREEK, WEST						
Sunburst (L. Cret.) Gas	(Shut-in)	1	Strat.	Depletion	640-acre spacing unit located no closer than 660' from unit boundary. (Order 91-76.)	None
TIPPY BUTTES						
Tyler (Penn.)		1	Strat.	Depletion	State-wide.	None
TRAIL CREEK						
Sunburst (L. Cret.) Gas	(Shut-in)	2	Structural-	Water Drive	One well per 320 acres consisting of S½ and N½ of each governmental section but no closer than 990' from spacing boundary. (Orders 33-70, 28-76.)	None
Bow Island (L. Cret.) Gas	(Shut-in)	2	Strat.	Volumetric		
TULE CREEK						
Nisku (Dev.)		5	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 26-62, 6-65, 11-67, 5-77.)	Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67, 8-A-76.)
	(Shut-in)	2				
TULE CREEK, EAST						
Nisku (Dev.)		1	Structural	Water Drive	160-acre spacing units with permitted well anywhere within 1320' square in center of each unit. (Orders 40-64, 6-65.)	Water injected into Judith River formation. (Order 13-68.)
	(Shut-in)	1				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
TULE CREEK, SOUTH						
Nisku (Dev.)		3	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit.	Authority given to dispose of produced water into Dakota. (Order 44-64.) Into Judith River formation. (Order 29-67.)
UTOPIA SWIFT						
Sawtooth (Jur.) Gas		3	Structural	Depletion	40-acre spacing units; location to be in center of quarter-quarter section with no more than 100' topographic tolerance. (Order 9-78.)	None
	(Shut-in)	4		Water Drive		
Swift (U. Jur.) Oil		10	Structural	Water Drive		
	(Shut-in)	1				
VAUX						
Red River (Ord.)		8	Structural	Water Drive	State-wide.	None
Mission Canyon (Miss.)		1				
	(Shut-in)	2				
VAUX, SOUTH						
Interlake (Sil.)		1	Structural-Strat.	Water Drive	State-wide.	None
VIDA						
Interlake (Sil.)		2	Structural	Water Drive	160-acre spacing units with permitted well anywhere within an 840' square in center of each unit. (Order 39-63.) Field Area reduction. (Order 79-76.)	Water injected into Lakota formation. (Order 14-68.)
VIKING						
Dawson Bay (Dev.) Winnipegosis		1	Structural-Strat.	Water Drive	320-acre spacing units, designated; to be located no closer than 660' to the unit exterior boundary and no closer than 1500' to any well producing from the same formation. If not feasible to produce two zones separately, commingling permissible with prior administrative approval. (Order 50-77.)	None
VOLT						
Nisku (Dev.)		5	Structural	Water Drive	160-acre spacing units with permitted well anywhere within a 1320' square in center of each unit. (Orders 27-64, 6-65, 32-65.)	Excess produced water is disposed into Judith River. (Order 3-65, 37-A-74.)
	(Shut-in)	2				
Charles "C" (Miss.)		1	Structural	Water Drive	State-wide.	
WAGON BOX						
Tyler (Penn.)		**1**	**Structural-Strat.**	**Unknown**	State-wide.	None
	(Shut-in)	**1**				
WEED CREEK						
Amsden (Penn.)		1	Structural	Water Drive	State-wide.	None
WELDON						
Kibbey (Miss.)		3	Structural	Partial Water Drive	80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE¼ and SW¼ of quarter section with 200' topographic tolerance. (Order 9-65.)	Excess produced water is disposed into the Dakota, Lakota, Morrison and Charles formations. (Orders 31-65, 47-65, 37-66, 16-67.)
	(Shut-in)	1				

Field, Formation, Age		No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
WEST BUTTE						
Sunburst (L. Cret.) Oil		1	Structural-Strat.	Depletion	State-wide, except W½ Section 16 is considered a single spacing unit.	None
Bow Island (L. Cret.) Gas	(Shut-in)	1				
Sawtooth (Jur.) Gas	(Shut-in)	3	Structural	Water Drive	Sawtooth-Madison gas commingled, unitized. (Order 5-72.) No well closer than 330′ from unit boundary.	
Madison (Miss.) Gas	(Shut-in)	1				
WEST BUTTE SHALLOW GAS						
Bow Island (L. Cret.)		1	Structural-Strat.	Volumetric	160-acre spacing units; with one well to be permitted to produce from each individual gas producing formation above the top of the Kootenai to the surface within each 160-acre spacing unit. Well locations to be anywhere within the spacing unit but not closer than 990 feet from the spacing unit boundaries. (Order 39-77.)	None
WEST REAGAN						
(See Reagan, West)						
WHITLASH						
Bow Island, Kootenai, Swift	Oil	65	Structural-Strat.	Volumetric	Gas: 300′ from legal subdivision line and 2400′ between wells, 75′ topographic tolerance. Oil: 330′ from legal subdivision line and 650′ between wells; 5-spot location at center of 40-acre tract permitted; 75′ topographic tolerance. General Rules 207, 211, 219, 221, 223, and 224 suspended. (Orders 16-54, 27-70.)	None
(Cret.) (Jur.)	(Shut-in)	9				
	Gas	41				
	(Shut-in)	10				
Madison (Miss.) Gas		1				
WHITLASH, WEST						
Sunburst, Swift	(Shut-in) Oil	1	Structural-Strat.	Volumetric	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660′ square in center of spacing unit. Oil: 330′ from legal subdivision line, 650′ between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended.) (Order 61-62) Amended by (Order 48-77.)	None
(Cret.) (Jur.)	Gas	8				
Sawtooth (Jur.)	(Shut-in)	1				
WILLOW CREEK, NORTH						
Tyler (Penn.) Oil		2	Structural-Strat.	Depletion Water Drive	State-wide.	Pilotflood. (Order 19-72.)
WILLOW RIDGE						
Bow Island (L. Cret.) Gas		6	Structural-Strat.	Volumetric	640-acre spacing units; location to be no closer than 990′ to unit boundary for gas production from all formations to the top of the Kootenai. (Order 29-78.)	None
Burwash (Cret.) Oil		2			40-acre spacing units with permitted 5 wells; well may be located in the center of each 10 acre quarter, quarter, quarter section and one in the center of each 40-acre subdivision with a 75′ topographic tolerance allowed. (Order 30-78.)	

Field, Formation, Age	No. Prod. Wells	Type of Trap	Probable Drive Mechanism	Spacing Regulations, Field Rules, and Remarks	Secondary Recovery or Water Disposal
WILLS CREEK, SOUTH					
Interlake (Sil.)	3	Structural	Partial Water Drive	160-acre spacing units. Well location in center of SE¼ of each unit with 175' topographic tolerance. (Orders 5-64, 30-66.)	Waterflood initiated 12-1-73. (Order 23-73.)
WINNETT JUNCTION					
Tyler (Penn.)	6	Strat.	Depletion Water Drive	20-acre spacing units. Units to be designated as W½ and E½ of quarter-quarter section, no closer than 120' to the boundary of a spacing unit. (Order 57-76.) Certain lands bound by (Order 57-76) vacated by (Order 41-77.)	A waterflood operation commenced October 1, 1977 into Tyler formation. (Order 41-77.)
WOLF SPRINGS					
Amsden (Penn.)	3	Structural	Water Drive	80-acre spacing units consisting of N½ and S½ of each quarter section. Well location in center of NW¼ and SE¼ of each quarter section with 75' topographic tolerance. (Order 4-56, 9-59.) Field Area reduction (Order 92-76.)	None
(Shut-in)	1				
WOODROW					
Charles, Duperow, Interlake	1	Structural	Water Drive	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE¼ and SW¼ of each quarter section with 200' topographic tolerance. (Order 47-62.)	Produced water injected into Dakota. (Order 48-62.)
Red River (Ord.)	1				
(Shut-in)	1				
WRIGHT CREEK					
Muddy (L. Cret.)	3	Structural-Strat.	Depletion Water Drive	80-acre spacing consisting of N½ and S½ of quarter section with locations in NW¼ and SE¼ of each quarter section with 200' tolerance. Field Area reduction (Order 69-76.)	Excess produced water is disposed of into the Muddy formation. (Order 8-A-77.)
(Shut-in)	1				



MONTANA
OIL AND GAS FIELDS, PIPELINES AND REFINERIES
1978

BOARD OF OIL AND GAS CONSERVATION

STATE OF MONTANA – SUMMARY OF PRODUCING OIL FIELDS – 1978

MONTANA BOARD OF OIL AND GAS CONSERVATION

LINE NO	FIELD	COUNTY	PRODUCING FORMATION	YEAR OF DISCOVERY	DEPTH	GRAVITY ° API	F.V.F.	NET PAY FT.	POROSITY (%)	Sw (%)	O.O.I.P. (BBLS/ACRE)	PRODUCTIVE AREA 1-1-79 (ACRES)	O.O.I.P. (M BBLS)	RECOVERY FACTOR (%) PRIMARY	RECOVERY FACTOR (%) SECONDARY	ULTIMATE RECOVERY (M BBLS.) PRIMARY	ULTIMATE RECOVERY (M BBLS.) SECONDARY	ULTIMATE RECOVERY (M BBLS.) TOTAL	CUMULATIVE PRODUCTION 1-1-79 (M BBLS.)	RESERVES 1-1-79 (M BBLS)	1978 PRODUCTION (BBLS)	1978 PRODUCTION (BOPD)	ULTIMATE RECOVERY (BBLS/ACRE)	ULTIMATE RECOVERY (BBLS/ACRE/FT.)	LINE NO
1	Ash Creek	Big Horn	Shannon (Cret.)	1952	4,500	34	1.05	14	22	[illegible]	13,200	200	2,640	25	7	660	180	840	767	73	10,068	28	4,200	300	1
2	Bainville	Roosevelt	Red River (Ord.)	1969	10,300	45	1.75	38	15	34	16,680	320	5,340	8	--	420	--	420	338	82	13,453	37	1,310	35	2
3	Bainville, West	Roosevelt	Red River (Ord.)	1978	8,500	34	1.50	12	6	45	2,050	320	660	15	--	100	--	100	12	88	12,438	34	310	26	3
4	Bears Den	Liberty	Sunburst (Cret.)	1924	2,300	39	1.08	20	12	35	11,210	240	2,240	29	--	650	--	650	534	116	10,091	26	2,710	135	4
5	Bell Creek	Powder River	Muddy (Cret.)	1967	4,400	36	1.11	10	26	23	13,990	17,440	243,990	29	29	64,000	64,000	128,000	102,569	25,431	7,209,405	19,752	8,000	800	5
6	Benrud East	Roosevelt	Nisku (Dev.)	1962	7,500	46	1.37	22	15	30	13,080	480	6,280	44	--	2,800	--	2,800	2,241	559	105,423	293	5,830	265	6
7	Benrud, Northeast	Roosevelt	Nisku (Dev.)	1964	7,400	46	1.40	23	16	30	14,270	320	4,570	23	--	1,040	--	1,040	880	160	11,891	33	3,250	141	7
8	Big Gully	Musselshell	Tyler (Penn.)	1976	3,800	30	1.25	11	16	30	7,650	160	1,220	19	--	230	--	230	78	152	11,981	50	1,440	131	8
9	Big Muddy Creek	Roosevelt	Red River (Ord.)	1975	11,900	48	1.72	11	14	36	4,450	1,280	5,700	22	--	1,260	--	1,260	768	492	77,577	212	980	89	9
10	Big Wall	Musselshell	Amsden (Penn.)	1953	2,500	19	1.01	17	16	35	13,530	280	3,800	24	--	900	--	900	761	139	11,255	38	3,210	189	10
11	Big Wall	Musselshell	Tyler (Penn.)	1948	3,000	31	1.02	22	17	40	17,070	1,220	20,830	29	2	6,050	500	6,550	5,324	1,176	78,748	216	5,370	244	11
12	Blackfoot	Glacier	Cut Bank (Cret.)	1955	3,500	30	1.11	15	15	35	10,220	160	1,640	35	--	1,360	--	1,360	1,101	259	17,843	49	2,125	92	12
13	Blackfoot	Glacier	Madison (Miss.)	1955	3,600	25	1.15	8	14	40	4,530	480	2,170												13
14	Blue Hill	Richland	Red River (Ord.)	1977	12,600	48	1.35	32	10	60	7,360	320	2,360	13	--	310	--	310	73	237	30,618	84	131	4	14
15	Boulder	Richland	Duperow (Dev.)	1976	10,400	46	2.30	11	22	16	6,860	160	1,100	18	--	200	--	200	106	94	14,416	39	1,250	114	15
16	Bowes	Blaine	Sawtooth (Jur.)	1949	3,300	19	1.02	37	17	31	23,300	3,760	87,600	8	3	7,200	2,200	9,400	8,353	1,047	120,826	331	2,500	68	16
17	Bradley	Glacier	Sunburst (Mad.)	1959	3,500	26	1.25	6	11	49	2,090	160	330	44	--	150	--	150	102	48	6,920	19	938	156	17
18	Breed Creek	Rosebud	Tyler (Penn.)	1976	4,900	32	1.15	20	15	37	12,750	200	2,550	28	--	720	--	720	252	468	79,359	217	3,600	180	18
19	Brorson	Richland	Madison (Miss.)	1954	9,600	32	1.40	40	5	40	6,650	1,280	8,510	13	--	1,060	--	1,060	832	228	29,033	99	830	21	19
20	Brorson	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	10	35	5,930	1,440	8,540	27	--	2,270	--	2,270	1,920	350	42,884	123	1,580	79	20
21	Brorson, South	Richland	Red River (Ord.)	1968	12,600	48	1.70	20	12	30	7,670	1,120	8,590	19	--	1,600	--	1,600	1,100	500	83,119	182	1,430	72	21
22	Brush Lake	Sheridan	Red River (Ord.)	1969	11,400	40	1.50	30	14	35	14,120	2,240	31,630	8	--	2,540	--	2,540	1,850	690	83,102	228	1,130	38	22
23	Burns Creek	Dawson	Red River (Ord.)	1972	11,400	39	1.25	14	14	40	7,300	640	4,670	8	--	360	--	360	157	203	18,121	42	560	40	23
24	Cabin Creek	Fallon	Madison (Miss.)	1956	7,300	33	1.13	25	11	30	13,220	2,260	26,880	55	--	14,820	--	14,820	13,851	969	229,658	532	6,560	262	24
25	Cabin Creek	Fallon	Siluro-Ordovician	1953	9,000	33	1.20	50	13	30	29,420	7,620	224,180	23	11	51,000	24,000	75,000	60,512	14,488	1,395,142	3,230	9,840	197	25
26	Canal	Richland	Red River (Ord.)	1970	12,700	47	2.07	58	8	40	10,430	320	3,340	18	--	610	--	610	494	116	20,497	58	1,910	33	26
27	Canal	Richland	Ratcliffe-Mission Canyon (Miss.)	1977	9,200	33						160	--	--	--	110	--	110	14	96	9,962	28	--	--	27
28	Cat Creek (Antelope-Mosby)	Garfield	Kootenai (Cret.)	1920	1,200	52	1.10	10	21	19	12,000	200	2,400	21	8	500	200	700	5,164	436	36,758	101	3,500	350	28
29	Cat Creek	Petroleum, Garfield	Morrison (Jur.)	1945	1,600	52	1.10	6	22	40	5,590	240	1,340	30	--	400	--	400					1,670	278	29
30	Cat Creek	Petroleum, Garfield	Ellis (Jur.)	1945	1,700	52	1.10	25	18	40	19,040	880	16,760	26	1	4,400	100	4,500							30
31	Cat Creek (West Dome)	Petroleum	Kootenai (Cret.)	1920	1,100	52	1.10	51	21	19	61,180	900	55,060	27	6	14,600	3,300	17,900	17,515	385	58,547	160	5,110	204	31
32	Cat Creek	Petroleum	Amsden (Penn.)	1967	2,000	52	1.00	10	8	30	4,340	80	350	17	14	60	50	110	76	34	4,062	1	1,380	138	32
33	Charlie Creek	Richland	Nisku (Dev.)	1976	9,900	42	1.60	12	6	35	2,270	640	1,910	35	--	670	--	670	242	428	139,104	378	1,050	42	33
34	Charlie Creek	Richland	Duperow (Dev.)	1977	10,300	45	1.60	13	9	35	3,690														34
35	Clear Lake	Sheridan	Mission Canyon (Miss.)	1978	7,600	33	1.15	10	5	30	2,360	320	760	20	--	150	--	150	8	142	8,284	82	470	47	35
36	Clear Lake	Sheridan	Red River (Ord.)	1977	11,200	42	1.65	32	18	35	17,600	1,280	22,530	9	--	2,200	--	2,200	191	2,009	146,259	401	1,720	54	36
37	Colored Canyon	Sheridan	Red River (Ord.)	1978	11,300	40	1.40	18	13	28	10,890	320	3,480	20	--	700	--	700	56	644	56,132	155	2,190	122	37
38	Cow Creek	McCone	Charles (Miss.)	1965	6,800	40	1.20	25	8	48	6,720	160	1,080	14	--	150	--	150	110	40	4,057	11	940	38	38
39	Cow Creek, East	McCone	Kibbey (Miss.)	1971	6,100	35	1.05	15	15	35	10,810	1,760	19,030	18	--	3,500	--	3,500	1,639	1,861	189,766	520	1,990	133	39
40	Culbertson	Roosevelt	Red River (Ord.)	1969	11,900	48	1.80	20	12	16	8,690	640	5,560	8	--	450	--	450	238	212	81,284	224	700	35	40
41	Cupton	Fallon	Red River (Ord.)	1955	9,600	38	1.25	40	12	30	20,850	1,760	36,700	7	--	2,460	--	2,460	1,255	1,205	106,023	291	1,400	35	41
42	Cut Bank	Toole, Glacier, Pondera	Kootenai (Cret.)	1932	2,900	31	1.09	18	15	35	12,490	49,000	612,010	25	5	122,500	32,500	155,000	142,811	12,189	1,516,033	4,154	3,160	176	42
43	Cut Bank	Glacier	Madison (Miss.)	1945	3,000	34	1.10	10	14	30	6,910	3,200	22,110	34	--	7,500	--	7,500	6,681	819	100,436	275	2,340	234	43
44	Dagmar	Sheridan	Red River (Ord.)	1976	11,300	37	1.65	22	16	35	10,760	640	6,890	7	--	500	--	500	100	400	45,360	124	780	35	44
45	Deer Creek	Dawson	Interlake (Sil.)	1956	9,400	43	1.20	38	7	30	12,040	480	5,780	23	--	1,310	--	1,310	1,272	38	6,355	17	2,730	72	45
46	Dry Creek	Carbon	Virgelle (Upper Cret.)	1929	2,600	65	1.01	60	15	65	44,490	80	3,560	6	--	210	--	210	85	125	24,166	66	240	4	46
47	Dwyer	Sheridan	Ratcliffe (Miss.)	1960	8,000	37	1.32	38	11	56	10,810	4,480	48,430	10	5	4,800	2,500	7,300	5,838	2,062	149,369	409	1,630	43	47
48	Eagle	Richland	Ratcliffe (Miss.)	1977	8,900	32	1.27	15	4	35	2,480	120	300	40	--	120	--	120	27	93	26,536	42	1,000	67	48
49	Elk Basin	Carbon	Frontier (Cret.)	1915	1,200	45	1.35	30	21	20	33,710	120	4,050	--	--	1,500	300	1,800	1,573	227	20,592	56	15,000	500	49
50	Elk Basin	Carbon	Tensleep (Penn.)	1942	5,000	29	1.16	124	11	10	32,100	1,400	114,940	--	50	--	56,970	56,970	52,068	4,902	466,724	1,279	40,690	328	50
51	Elk Basin	Carbon	Madison (Miss.)	1942	5,300	23	1.12	224	12	9	169,430	920	155,880	9	8	14,000	11,940	25,940	18,865	7,075	453,761	1,243	28,200	126	51
52	Elk Basin, Northwest	Carbon	Tensleep (Penn.)	1964	6,000	37	1.15	27	12	22	17,050	580	9,890	10	3	1,000	300	1,300	1,244	16	13,103	36	2,241	187	52
53	Fairview	Richland	Winnipegosis (Dev.)	1967	11,500	43	1.10	27	7	30	9,330	480	4,480	8	--	350	--	350	277	73	7,527	21	730	27	53
54	Fairview	Richland	Red River (Ord.)	1965	12,700	47	1.70	35	11	28	12,650	1,760	22,260	19	15	4,500	3,270	7,770	5,386	2,384	250,269	686	4,410	126	54
55	Fertile Prairie	Fallon	Red River (Ord.)	1957	9,300	29	1.20	6	14	27	3,960	560	2,220	24	--	540	--	540	435	105	11,188	31	960	160	55
56	Flat Coulee	Liberty	Swift (Jur.)	1933	2,900	37	1.10	18	21	35	17,330	1,280	22,180	13	11	2,800	2,530	5,330	3,088	2,242	133,908	367	4,160	231	56
57	Flat Lake	Sheridan	Ratcliffe (Miss.)	1964	6,500	33	1.26	14	15	45	7,110	9,600	68,260	14	10	9,680	7,070	16,750	10,843	5,907	567,545	1,555	1,740	124	57
58	Flat Lake, South	Sheridan	Ratcliffe (Miss.)	1966	6,500	32	1.26	9	12	45	3,660	1,120	4,100	33	--	1,350	--	1,350	960	390	41,052	114	1,200	133	58
59	Fort Gilbert	Richland	Red River (Ord.)	1970	12,500	48	1.89	42	12	20	16,550	960	15,890	11	--	1,760	--	1,760	1,055	705	52,832	145	1,830	44	59
60	Four Mile Creek	Richland	Red River (Ord.)	1975	12,500	47	1.50	15	15	35	17,650	320	5,650	5	--	290	--	290	152	138	36,908	101	900	26	60
61	Four Mile Creek, West	Richland	Red River (Ord.)	1976	12,500	45	1.30	15	13	40	6,930	640	4,470	26	--	1,160	--	1,160	72	1,088	44,237	121	1,630	--	61
62	Frannie	Carbon	Tensleep (Penn.)	1978	2,700	27	1.02	29	19	16	35,200	80	2,820	28	--	800	--	800	704	96	8,678	24	10,000	345	62
63	Fred & George Creek	Toole	Sunburst (Cret.)	1963	2,600	39	1.20	31	27	30	37,800	880	33,330	23	21	7,700	6,940	14,640	9,733	4,907	384,725	1,054	16,640	537	63
64	Fred & George Creek	Toole	Swift (Jur.)	1963	2,700	39	1.10	8	14	30	5,530	1,360	7,520	21	--	1,600	--	1,600	1,252	348	82,218	225	1,180	148	64
65	Gas City	Dawson	Red River (Ord.)	1955	8,900	18	1.28	25	12	35	11,870	2,800	33,100	26	3	8,600	860	9,460	8,783	677	92,782	255	3,380	135	65
66	Glendive	Dawson	Red River (Ord.)	1957	8,900	38	1.25	147	3	35	47,440	1,280	60,720	23	--	13,720	--	13,720	10,918	2,802	308,907	572	10,720	73	66
67	Goose Lake	Sheridan	Ratcliffe (Miss.)	1962	7,000	34	1.20	40	16	55	18,620	6,880	128,110	6	1	8,000	1,200	9,200	6,829	2,371	188,951	518	1,140	34	67
68	Graben Coulee	Glacier	Swift, Cut Bank, Madison	1961	2,900	34	1.10	15	12	30	8,890	470	4,180	67	--	1,530	--	1,530	1,269	261	42,876	117	3,260	217	68
69	Gumbo Ridge	Rosebud	Tyler (Penn.)	1975	4,900	32	1.10	16	13	35	9,540	240	2,290	31	--	720	--	720	284	436	37,283	88	3,000	188	69
70	Hay Creek	Richland	Mission Canyon (Miss.)	1969	9,600	39	1.15	40	5	30	9,440	160	1,510	18	--	270	--	270	164	106	10,403	29	1,690	42	70
71	Hay Creek	Richland	Red River (Ord.)	1965	12,600	46	1.90	53	12	25	19,480	960	18,700	7	--	1,280	--	1,280	895	385	32,184	88	1,330	25	71
72	Hiawatha	Musselshell	Tyler (Penn.)	1967	5,000	33	1.15	34	12	30	19,270	400	7,710	23	--	1,740	--	1,740	1,284	456	47,842	131	4,350	128	72
73	High Five	Rosebud	Stensvad (Penn.)	1976	5,600	33	1.15	20	20	32	18,350	640	11,740	26	--	3,000	--	3,000	568	2,432	313,151	858	4,690	235	73
74	Howard Coulee	Musselshell	Tyler (Penn.)	1974	3,400	31	1.09	28	14	32	18,970	160	3,040	7	--	210	--	210	62	148	22,992	61	310	47	74
75	Ivanhoe	Musselshell	Tyler (Penn.)	1956	4,100	33	1.08	29	15	20	25,000	600	15,000	28	--	4,230	--	4,230	3,876	354	30,941	85	7,050	243	75
76	Jim Coulee	Musselshell	Tyler (Penn.)	1971	3,700	33	1.10	37	15	33	26,230	840	22,030	17	10	3,800	2,120	5,920	3,112	2,808	258,529	708	7,050	191	76
77	Keg Coulee	Musselshell	Tyler (Penn.)	1960	4,600	33	1.15	19	14	32	12,200	1,480	18,060	24	4	4,400	670	5,070	4,715	355	85,079	226	3,430	181	77
78	Keg Coulee, North	Musselshell	Tyler (Penn.)	1964	4,600	33	1.15	14	12	32	7,719	160	1,230	45	--	550	--	550	319	231	23,248	64	3,440	246	78
79	Kelloy	Musselshell	Tyler (Penn.)	1965	4,400	33	1.15	50	13	30	30,690	200	6,140	8	7	500	400	900	853	47	18,542	51	4,500	90	79
80	Kevin-Sunburst	Toole	Sunburst-Madison (Cret.-Miss.)	1922	1,500	32	1.08	7	20	35	6,540	40,200	262,910	27	4	70,000	10,000	80,000	77,551	2,449	323,941	871	1,990	284	80
81	Laird Creek	Liberty	Swift (Jur.)	1968	2,800	39	1.10	14	16	25	11,850	480	5,690	9	4	550	250	800	492	308	25,500	70	1,670	119	81
82	Loary	Powder River	Muddy (Cret.)	1969	5,800	41	1.15	7	17	33	5,380	400	2,152	38	--	820	--	820	318	502	33,758	92	2,050	293	82
83	Little Beaver	Fallon	Red River (Ord.)	1952	8,300	29	1.40	37	12	35	15,990	2,390	38,220	18	16	7,000	6,000	13,000	8,438	4,562	403,568	1,106	5,440	147	83
84	Little Beaver, East	Fallon	Red River (Ord.)	1954	8,300	30	1.50	24	13	35	10,490	1,600	16,780	23	14	3,900	2,300	6,200	4,314	1,886	126,297	346	3,880	162	84
85	Little Wall Creek	Musselshell	Tyler (Penn.)	1970	3,700	33	1.10	40	15	33	28,350	720	20,410	20	--	4,060	--	4,060	1,530	2,530	223,996	614	5,640	141	85
86	Lone Butte	Richland	Red River (Ord.)	1974	12,400	45	1.70	14	11	30	4,920	640	3,150	16	--	490	--	490	241	249	34,123	93	770	55	86
87	Lonetree Creek	Richland	Red River (Ord.)	1970	12,500	47	1.86	19	11	30	6,100	3,200	19,520	21	--	4,030	--	4,030	2,081	1,949	140,112	384	1,260	66	87
88	Long Creek	Roosevelt	Charles (Miss.)	1976	6,500							160	--	--	--	110	--	110	23	87	6,544	18	690	--	88
89	Long Creek, West	Roosevelt	Nisku (Dev.)	1977	7,700	39						480	--	--	--	930	--	930	120	810	69,786	191	1,940	--	89
90	Lookout Butte	Fallon	Mission Canyon (Miss.)	1961	[illegible]	26	1.13	26	10	35	[illegible]	1,920	22,270	8	1	1,700	300	2,000	1,532	468	35,805	98	1,040	40	90
91	Lookout Butte	Fallon	Silurian-Ordovician	1951	[illegible]	33	[illegible]	15	15	25	11,380	6,100	69,420	19	14	13,000	9,700	22,700	16,718	5,982	578,675	1,585	3,720	248	91
92	Mason Lake	Musselshell	Dakota (Cret.)	1964	4,200	47	1.10	12	15	43	7,240	280	2,027	25	--	500	--	500	189	311	24,747	68	1,790	149	92
93	McCabe	Roosevelt	Ratcliffe (Miss.)	1973	8,700	37	1.51	20	13	40	[illegible]	160	1,290	9	--	110	--	110	11	99	10,767	29	690	35	93
94	Melstone	Musselshell	Tyler (Penn.)	[illegible]	4,400	34	1.09	[illegible]	[illegible]	30	[illegible]	680	12,702	24	--	3,000	--	3,000	1,943	1,707	131,392	360	4,410	176	94
95	Monarch	Fallon	Siluro-Ordovician	[illegible]	[illegible]	32	[illegible]	[illegible]	7	[illegible]	[illegible]	2,240	22,290	26	5	4,900	500	5,400	3,947	1,453	125,420	344	2,410	78	95
96	MonDak West	Richland	Silurian-Ordovician	1976	[illegible]	[illegible]	1.85	18	8	43	[illegible]	1,920	6,600	32	--	2,100	--	2,100	491	6,122	343,773	942	1,090	61	96
97	Nohly	Richland	Red River (Ord.)	1977	12,900	[illegible]	[illegible]	27	10	40	[illegible]	640	5,630	21	--	1,200	--	1,200	833	367	71,198	195	1,880	70	97
98	North Fork	Richland	Red River (Ord.)	[illegible]	12,700	[illegible]	1.50	12	14	57	7,340	320	2,350	17	--	400	--	400	79	321	27,610	76	1,250	104	98
99	North Fork	Richland	Madison (Miss.)	[illegible]	[illegible]	[illegible]						160	--	--	--	150	--	150	40	110	24,333	67	940	--	99
100	Otis Creek	Richland	Red River (Ord.)	[illegible]	[illegible]	[illegible]	[illegible]	23	12	[illegible]	[illegible]	1,280	10,010	8	--	850	--	850	532	318	56,826	156	660	29	100
101	Outlook	Sheridan	Silurian-Devonian	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	[illegible]	[illegible]	1,600	12,420	46	--	5,700	--	5,700	5,464	236	64,411	176	3,560	128	101
102	Outlook	Sheridan	Duperow (Dev.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	640	3,720	40	--	1,500	--	1,500	1,194	306	57,144	157	2,340	156	102
103	Outlook	[illegible]	Winnipegosis (Dev.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	480	3,350	21	--	700	--	700	532	168	29,640	81	1,460	81	103
104	Outlook, South	Sheridan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	480	3,350	11	--	370	--	370	340	30	5,757	[illegible]	770	43	104
105	Outlook, West	Sheridan	Winnipegosis (Dev.)	[illegible]	[illegible]	39	1.12	[illegible]		30	[illegible]	320	1,990	30	--	600	--	[illegible]	545	55	10,119	28	1,880	118	105
106	Oxbow	Roosevelt	Red River (Ord.)	[illegible]	12,600	[illegible]	[illegible]	[illegible]	12	45	6,140	320	1,960	20	--	400	--	400	29	371	29,266	80	1,250	69	106
107	Pennel	Fallon	Silurian-Ordovician	[illegible]	[illegible]	33	[illegible]	25	11	35	12,160	22,380	272,140	11	9	31,000	25,600	58,000	40,686	17,314	2,806,275	7,688	2,530	230	107
108	Pennel	Fallon	Mission Canyon (Miss.)	[illegible]	[illegible]	31	[illegible]	38	[illegible]	30	5,630	720	4,050	17	--	700	--						970	26	108
109	Pennel	Fallon	Lodgepole (Miss.)	[illegible]	[illegible]	36	[illegible]	[illegible]	8	35	10,710	320	3,430	20	--	700	--						2,190	73	109
110	Phantom	Toole	Sunburst (Cret.)	1971	2,700	38	1.09	12	20	25	16,012	120	1,920	20	--	380	--	380	19	361	15,620	43	3,170	264	110
111	Pine	Fallon, Prairie, Dawson, Wibaux	Silurian-Ordovician	1952	3,400	34	1.17	32	12	30	17,820	13,320	237,360	24	20	57,000	48,000	105,000	87,825	17,175	2,248,273	6,160	7,880	246	111
112	Pondera	Pondera	Madison (Miss.)	1927	2,100	34	1.20	15	16	31	10,710	5,560	59,550	44	--	26,000	--	26,000	21,156	4,844	281,579	771	4,680	312	112
113	Poplar, East	Roosevelt	Madison (Miss.)	1952	5,500	40	1.30	25	11	30	13,583	18,070	245,390	19	--	45,800	--	45,800	42,544	3,256	391,102	1,072	2,530	101	113
114	Poplar, East	Roosevelt	Heath (Penn.)	1969	4,930	38	1.10	8	11	50	3,100	480	1,490	--	--	330	--	330	236	94	6,772	19	690	86	114
115	Poplar, East	Roosevelt	Nisku (Dev.)	1969	7,300	42	1.40	12	8	50	2,650	320	850	--	--	230	--	230	206	24	5,638	15	720	60	115
116	Poplar, Northwest	Roosevelt	Madison (Miss.)	1952	6,300	40	1.10	16	10	45	6,210	1,680	10,430	--	--	2,140	--	2,140	1,034	1,106	157,518	432	1,270	79	116
117	Putnam	Richland	Silurian-Ordovician	1965	11,900	41	[illegible]	16	9	30	4,470	1,920	8,580	28	--	2,400	--	2,400	678	1,722	149,070	408	1,250	78	117
118	Putnam	Richland	Madison (Miss.)	[illegible]	9,500	34	1.42	[illegible]	6	35	[illegible]	320	6,270	4	--	250	--	250	16	234	16,438	45	780	9	118
119	[illegible]	Blaine	Sawtooth (Jur.)	1972	4,000	21	1.15	12	10	16	[illegible]	800	9,790	7	--	670	--	670	357	313	42,159	116	840	70	119
120	Ragged Point	Musselshell	Tyler (Penn.)	1956	3,600	32	1.11	13	14	32	8,650	1,360	11,760	26	7	3,000	800	3,800	2,560	1,240	53,392	146	2,790	215	120
121	Rattler Butte	Rosebud	Tyler (Penn.)	1975	5,300	32	1.10	28	18	45	19,550	80	1,560	22	--	350	--	350	82	268	24,953	68	4,380	156	121
122	Raymond	Sheridan	Nisku (Dev.)	1972	7,900	50	1.40	22	3	50	4,830	320	1,560	51	--	800	--	800	487	313	47,044	129	2,500	114	122
123	Raymond	Sheridan	Duperow (Dev.)	1972	8,400	46	1.50	19	13	29	9,070	160	1,450	34	--	500	--	500	369	131	16,815	46	3,130	165	123
124	Raymond	Sheridan	Winnipegosis (Dev.)	1972	[illegible]	42	1.17	40	5	10	[illegible]	480	5,730	27	--	1,550	--	1,550	788	762	69,865	191	3,230	81	124
125	Raymond	Sheridan	Red River (Ord.)	1972	10,000	39	1.42	33	12	27	15,790	320	5,050	14	--	700	--	700	271	429	67,952	186	2,190	66	125
126	Reagan	Glacier	Madison (Miss.)	[illegible]	3,700	38	1.10	11	12	30	6,570	2,520	16,430	33	14	5,400	2,300	7,700	6,332	1,618	192,529	527	3,060	278	126
127	Red Creek	Glacier	Cut Bank (Cret.)	1958	2,600	31	1.08	70	19	30	[illegible]	770	14,710	14	2	2,000	250	2,250	2,146	104	26,759	73	2,920	146	127
128	Red Creek	Glacier	Madison (Miss.)	1959	2,800	28	[illegible]	32	13	30	20,540	640	13,150	29	--	3,750	--	3,750	3,026	724	59,698	164	5,860	183	128
129	Redstone	Sheridan	Winnipegosis (Dev.)	1958	9,400	42	1.10	34	8	30	13,430	320	4,300	11	--	460	--	460	428	32	9,301	25	1,440	42	129
130	Repeat	Carter	Red River (Ord.)	1956	8,600	23	1.02	25	10	30	13,310	160	2,130	24	--	510	--	510	454	56	10,962	30	3,190	128	130
131	Reserve	Sheridan	Red River (Ord.)	1965	11,100	35	1.30	18	6	30	4,510	1,280	5,770	19	--	1,070	--	1,070	729	141	56,657	155	840	47	131
132	Richey, Southwest	McCone	Silurian-Ordovician	1952	9,200	48	1.37	27	9	30	9,630	1,160	11,130	15	2	1,700	200	1,900	1,857	43	8,906	24	640	61	132
133	[illegible] Coulee	Roosevelt	Ratcliffe (Miss.)	1975	5,800	34	1.30	14	14	45	6,430	320	2,120	11	--	230	--	230	101	129	17,534	48	720	51	133
134	Rosebud	Rosebud	Tyler (Penn.)	1974	5,000	34	1.24	32	14	48	14,580	200	2,970	17	--	500	--	500	310	190	25,288	69	2,500	78	134
135	[illegible] Mountain	Sheridan	Red River (Ord.)	1968	12,000	39	1.62	14	10	33	4,490	320	1,440	38	--	550	--	550	339	211	20,998	58	1,720	123	135
136	[illegible]	Sheridan	Nisku (Dev.)	1970	7,900	43	1.50	23	11	35	8,510	480	4,080	10	--	400	--	400	268	132	18,291	50	810	36	136
137	Sand Creek	Dawson	Red River (Ord.)	1959	9,000	39	1.30	25	10	40	8,950	880	7,880	29	--	2,300	--	2,300	2,191	109	27,714	76	2,610	104	137
138	Second Creek	Richland	Red River (Ord.)	1972	12,700	46	1.50	30	7	40	6,520	1,280	8,350	14	--	1,190	--	1,190	677	513	115,618	317	930	31	138
139	Shotgun Creek, North	Roosevelt	Red River (Ord.) & Gunton (Ord.)	1976	12,100	43	1.50	34	8	50	7,030	320	2,250	11	--	250	--	250	25	225	25,291	69	780	23	139
140	Sidney	Richland	Madison (Miss.)	1976	9,000	34	1.30	60	4	50	7,160	1,120	8,020	17	--	1,400	--	1,400	205	1,195	119,855	328	1,250	21	140
141	Sioux Pass	Richland	Silurian-Ordovician	1973	12,700	47	1.70	40	9	35	10,680	2,240	23,920	12	--	2,760	--	2,760	1,746	1,014	236,566	648	1,230	31	141
142	Sioux Pass, East	Richland	Red River (Ord.)	1975	12,600	45	1.35	10	10	60	2,300	320	740	27	--	200	--	200	29	171	12,759	35	630	63	142
143	Sioux Pass, Middle	Richland	Red River (Ord.)	1976	12,600	45	1.40	17	16	25	11,100	640	7,230	10	--	750	--	750	318	432	101,869	279	1,170	69	143
144	Sioux Pass, North	Richland	Silurian-Ordovician	1974	12,000	45	1.60	44	12	40	15,360	1,920	29,490	7	--	1,900	--	1,900	864	1,036	100,182	274	990	23	144
145	Soap Creek	Big Horn	Tensleep, Amsden, Madison (Penn.-Miss.)	1952	1,900	20	1.05	20	15	35	14,410	340	4,900	52	--	2,550	--	2,550	2,010	540	47,541	130	7,500	375	145
146	South Fork	Richland	Red River (Ord.)	1976	12,400	46						960	--	--	--	1,000	--	1,000	238	762	163,651	448	[illegible]	--	146
147	Spring Lake	Richland	Red River (Ord.)	1963	11,700	51	2.00	9	12	30	2,930	900	2,640	30	--	790	--	790	671	119	17,690	48	880	98	147
148	Stensvad	Musselshell	Tyler (Penn.)	1958	5,500	33	1.17	25	14	20	[illegible]	1,200	22,280	31	14	7,000	3,120	10,120	10,114	6	12,053	33	8,430	337	148
149	Sumatra	Rosebud	Tyler (Penn.)	1949	4,500	32	1.16	30	19	35	24,780	5,520	136,790	25	9	34,000	12,000	46,000	35,746	10,254	1,573,450	4,311	8,330	278	149
150	Sunny Hill	Sheridan	Red River (Ord.)	1978	12,000	45	1.38	25	17	50	11,950	640	7,650	8	--	600	--	600	26	574	25,924	71	940	38	150
151	Tule Creek	Roosevelt	Nisku (Dev.)	1960	7,500	46	1.41	25	15	30	14,440	1,280	18,480	43	--	8,000	--	8,000	7,139	1,361	126,219	346	6,250	250	151
152	Tule Creek, East	Roosevelt	Nisku (Dev.)	1964	7,500	43	1.91	30	18	30	15,350	320	4,910	40	--	1,970	--	1,970	1,944	26	10,029	27	6,160	205	152
153	Tule Creek, South	Roosevelt	Nisku (Dev.)	1964	7,600	43	1.40	8	12	30	7,320	320	2,340	31	--	720	--	720	651	69	10,643	29	2,250	281	153
154	Utopia	Liberty	Swift (Jur.)	1977	2,300	33	1.15	17	16	40	10,320	520	5,370	20	--	1,080	--	1,080	70	1,010	53,824	147	2,080	122	154
155	Vaux	Richland	Red River (Ord.)	1976	12,400	48	1.60	24	14	45	8,960	2,560	22,940	9	--	2,000	--	2,000	258	1,742	163,879	449	780	33	155
156	Vaux, South	Richland	Interlake (Sil.)	1977	11,500	45	1.35	80	1	50	2,300	320	740	8	--	60	--	60	39	21	13,990	38	190	3	156
157	Vaux	Richland	Mission Canyon (Miss.)	1977	8,800	34	1.20	40	4	45	5,690	160	910	15	--	100	--	100	8	92	7,817	42	630	--	157
158	Volt	Roosevelt	Nisku (Dev.)	1964	7,300	47	1.40	14	20	30	10,860	800	8,690	32	--	2,800	--	2,800	2,152	648	85,340	234	3,500	250	158
159	Weldon	McCone	Kibbey (Miss.)	1964	5,900	39	1.01	14	16	35	11,180	1,560	17,440	40	--	7,050	--	7,050	6,963	87	19,630	54	4,520	323	159
160	Whitlash	Liberty	Swift, Sunburst (Jur.-Cret.)	1927	2,600	38	1.13	15	16	20	13,180	1,950	25,700	23	--	6,000	--	6,000	4,083	1,917	157,819	432	3,080	205	160
161	WillowCreek, North	Musselshell	Tyler (Penn.)	1970	4,000	32	1.20	12	13	54	4,640	160	740	36	--	250	50	300	253	47	8,033	22	1,880	157	161
162	Wills Creek, South	Fallon	Interlake (Sil.)	1964	8,700	33	1.20	12	18	35	9,080	480	4,360	23	--	1,000	--	1,000	802	198	32,601	89	2,080	173	162
163	Winnett Junction	Musselshell	Tyler (Penn.)	1973	2,500	28	1.10	12	18	30	10,660	240	2,560	14	39	350	1,000	1,350	339	1,011	106,090	291	5,630	469	163
164	Wolf Springs	Yellowstone	Amsden (Penn.)	1955	6,200	30	1.07	11	6	23	3,680	3,840	14,130	34	--	4,800	--	4,800	4,526	274	19,951	55	1,250	114	164
165	Woodrow	Dawson	Silurian-Ordovician	1952	9,600	42	1.10	25	14	35	13,580	480	6,520	17	--	1,100	--	1,100	999	101	18,212	50	2,290	92	165
166	Wright Creek	Powder River	Muddy (Cret.)	1969	4,800	35	1.10	5	26	48	4,770	400	2,290	12	--	270	--	270	204	66	9,706	27	680	136	166
167	MonDak West	Richland	Madison (Miss.)	1976	9,000		1.42					2,240	--	--	--	5,000	--	5,000	477	4,523	386,779	1,060	2,230	--	167
168	Miscellaneous																			2,080	377,696	1,035	--	--	168
	Totals																			240,000	30,467,337	83,472			Totals

GENERALIZED STRATIGRAPHIC CORRELATION CHART

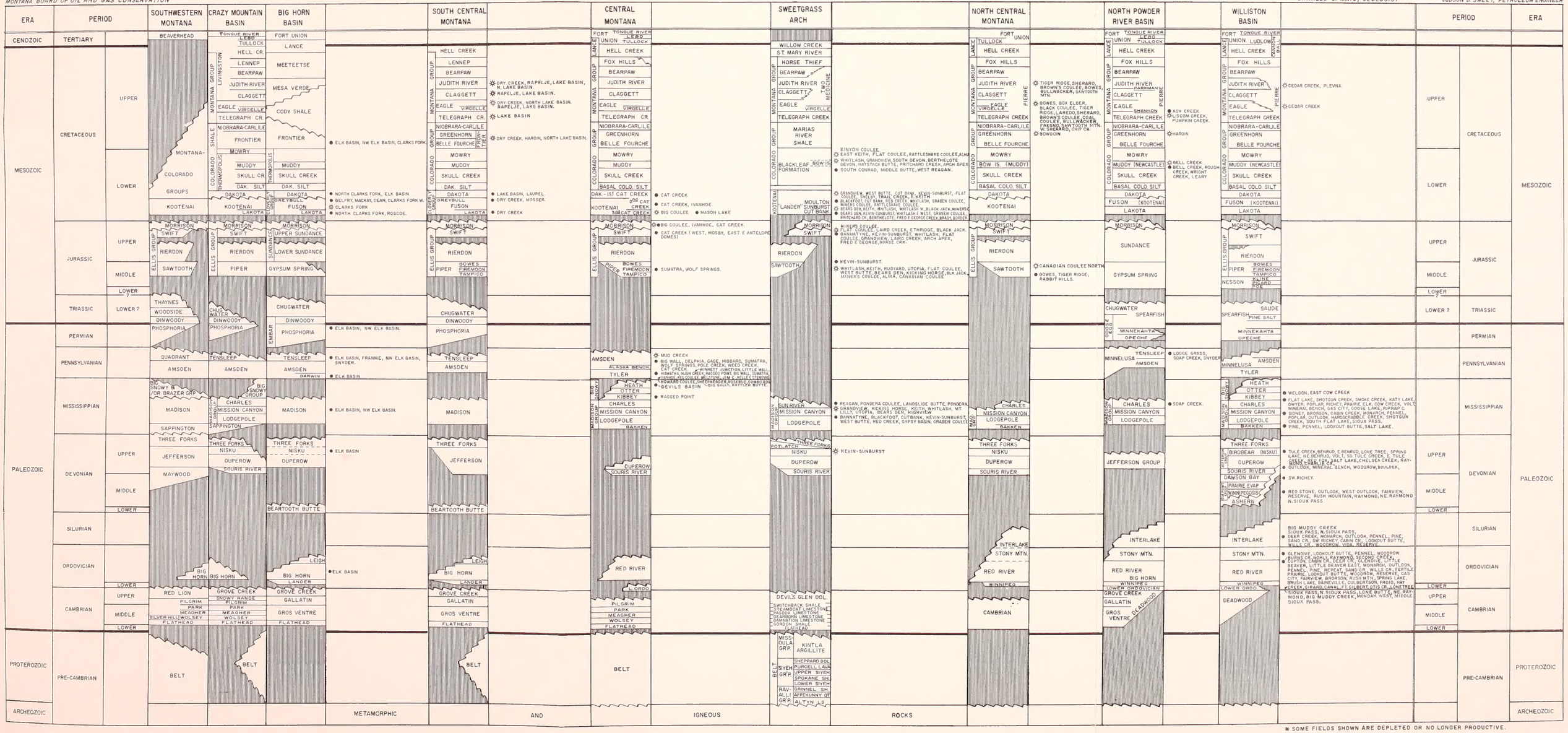
SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

• OIL ✡ GAS

1978

MONTANA BOARD OF OIL AND GAS CONSERVATION

CHARLES G. MAIO, GEOLOGIST — JUDSON D. SWEET, PETROLEUM ENGINEER



* SOME FIELDS SHOWN ARE DEPLETED OR NO LONGER PRODUCTIVE.

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